# SOCIAL AND ECONOMIC STUDIES

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INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH UNIVERSITY COLLEGE OF THE WEST INDIES, JAMAICA, B.W.I.

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#### SOCIAL AND ECONOMIC STUDIES

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#### INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

#### UNIVERSITY COLLEGE OF THE WEST INDIES

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# EMPLOYMENT, ECONOMIC DEVELOPMENT AND INCENTIVE FINANCING IN JAMAICA a

BY H. D. HUGGINS

#### INTRODUCTION

Part I of this paper discusses certain aspects of Jamaica's economy and background and selects certain activities of the island's economic life which have relevance to the subject of development. While not presenting a complete picture of the background of Jamaica's economy it does attempt to select aspects which indicate some

of the main economic trends which are appearing.

During the preparation of this study a good deal of lively discussion has taken place with colleagues at the Research Institute and some argument has centred, especially between those who are in the social field and those in the economic field, on what is meant by development. One of the conclusions is that development may almost be said to be all things to all men. Olivier (24) has made the somewhat cynical comment that development is a generous word, full of agreeable labial consonants and that its utterance imparts to the features the same pleasing expression as does the formula "prunes and prism". The word owes its establishment in the financial vocabulary largely to Lloyd George, who created the British Development Fund and an administering Development Commission. Frankel (9) draws attention to the term and concludes that all the definitions known to him "leave much to be desired". So much depends on the criteria used, on whether the user is a member or not of the society, on whether he is dealing with institutional standards in his own or another society. The history of development is the record of action by the society, not passive observation.

This paper uses development in a restricted sense, in a way that will doubtless be too limited to be acceptable in its broad and comprehensive sense. The International Bank's report on the economic development of Ceylon (17) states: "A primary object of development is higher average real income". The plans discussed in this paper have a similar object in view but nevertheless recognize that problems surrounding develop-

<sup>&</sup>lt;sup>a</sup> Since this issue of Social and Economic Studies went to press, the International Bank's Report Economic Development of Jamaica has appeared. The Bank's report covers many aspects of development in Jamaica. The paper here presented primarily attempts to answer the one question: If Jamaica, in addition to agricultural development, decides to increase employment opportunities through new manufacturing industries how can it set about this effectively through incentive financing?

ment are like a circle that has to be cut into at several points, that either the social, the educational or the political aspect, for example, can be a, and often the, limiting factor.

One of the ways of increasing average real income in Jamaica is clearly to increase output in agriculture by the application of additional capital and technology to farming. This direction offers much promise and will be dealt with in a separate paper especially since the Jamaica Government investment policy gives evidence of a programme that is under way to continue the trend in increasing agricultural output. Nevertheless the whole question of capitalization in farming is entangled with the problem of population pressure on the land. For more reasons than one, increasing average real income in Jamaica relates to providing more opportunities of productive employment for the unemployed and underemployed.

Part II outlines a plan to provide increased employment through manufactures in special relation to incentive financing and tries to evolve a programme, based on the experience in other territories now undergoing economic development, that may be in terms sufficiently

realistic to apply to Jamaica.

In an economy like Jamaica's the chief source of production is the land. There is a good case for suggesting that, if the intention is to raise the average real income, consideration in the first place should be given to agricultural development. While no one questions this it would be an aid to higher production in agriculture if the growing population on the land could find auxiliary sources of employment. In the absence of some plan for utilizing those who would in consequence go out of agriculture, the disconsolate alternative is to transfer the underemployed to the ranks of the fully unemployed. The establishment of manufactures offers one possibility of increasing opportunities for employment and can, therefore, be regarded as a requisite part of a comprehensive development programme designed to increase agricultural output under conditions like those existing in the island. although much is yet to be done, Jamaica is now conscious of the necessity for improving output in agriculture.

A community like Jamaica undertaking active development may expect to have to spend about 1% of its national income on agricultural extension services and research, and 3% on agricultural capital on and off the farms (29). While little information is available on investment in agriculture the government agricultural expenditure in 1952 was about £600,000 and much of this has relation to extension and research. Total investment in these services approaches 0.6% of the estimated national income indicating an awareness in government policy in regard to increasing the output of agriculture. Expenditure by Government on expanding manufactures until recently has been, relatively and in absolute terms, almost negligible.

The discussion in this paper has taken place in recognition of the

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marginal principle; with high underemployment in agriculture the transfer of labour into industry should increase material well-being. This requires major structural readjustments, the effects of which can be calculated only in general and very approximate terms.

#### PART I

#### SOME ASPECTS OF THE ECONOMIC SETTING

The average annual rainfall for the island is 76 inches with a wide range, from a precipitation in the 30's in the south-eastern area to over 200 inches in the northeast. There are two reasonably well defined rainy seasons, May to June and September to November. There is not a wide variation in temperature. In the south coastal area (including Kingston) the variation is from 74° to 84°F and extremes as high as 91° or as low as 68°, while sometimes experienced, are rare. The higher interior is cooler and the commonly accepted relationship is a fall in average mean temperature of 1.5° for every 500 ft. rise in elevation. In the Kingston area the relative humidity ranges between 75 and 81 per cent of saturation.

The island is mountainous and has a main ridge from east to west. An elevated plateau (lime-stone) makes up about four-fifths of the area. Coastal cliffs form the margin of the plateau. Low, flat coastal plains lie between the sea and the coastal cliffs, contain extensive flat areas of good arable land and have been a main choice for plantation agriculture. The low rainfall areas of the island coincide with the low-lying coastal plains and the high rainfall regions include the extensive limestone plateau, with its spurs and the central mountain mass.

The total area of the island is about 2,600,000 acres. According to the 1945 Agricultural Policy Committee report about 400,000 acres were cultivated, 700,000 acres were used as pasture, another 300,000 acres were stated to be cultivable but not used; there is agreement that much of this could be cultivated only with difficulty. About 2,400,000 acres are classified as mountainous or swamp; hence much of the mountainous land is now in pasture and agricultural occupation. Approximately 66,200 farmers were in operation. Of these 27% operated units of under 3 acres, 57% had units of under 5 acres. Only 8% had units of as much as 25 acres and while only 0.6% of the units were as big as 1000 acres the last class included 33% of the land in cultivation. The large holdings can be conveniently grouped into the estate plantations producing sugar, bananas and coconuts and confined primarily to the coastal plains; and into the livestock estates or pens found, in the main, on the lime-stone plateau and in the interior basins.

Jamaica's production is essentially agricultural. In the last year for which detailed figures are available (1943) the value of agricultural production (value of primary production at the farm plus value of agricultural products at factory less cost of raw materials, excise duty and

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estimates of deductions necessary to avoid duplicate charges) was 30% of the estimated national income (22); 26% was from primary agricultural production (a partly imputed value since much of the produce does not enter the market) and 4% from secondary agricultural production. Net value added at the secondary production stage was 8% of the national income in 1943. Of this secondary production 49% of the value was based on the taking forward of the processing of locally produced or mainly locally produced agricultural commodities.

Agriculture is more diversified in Jamaica than in most of the other Caribbean territories. The chief enterprises are food crops (including ground provisions—yams, cocoes, potatoes, sweet potatoes) sugar, bananas, tobacco, citrus, coconuts, coffee, pimento, ginger, cattle, horses, other stock and bees. Root crops are the highest in money value and relative values are shown (Table 1). The concentration on these crops is associated with the necessity for a high proportion of the population, the lower income groups, to depend on the starchy items of diet. Because these crops have not entered into the export trade their significance in the economy has sometimes been underestimated. It is only relatively recently that variety, fertilizer and similar experiments are being conducted on these crops in volume even approximating that indicated by their importance.

TABLE 1. AGRICULTURAL PRODUCTION, JAMAICA, 1943

Items	of individual com- modities as % total primary agricultural production.	primary and second- ary agricultural pro- duction.	secondary production as % all primary and secondary production.
	(Value)	(Value)	(Value)
Banana	8.6	7.2	5.2
Cocoa (beans)	1.4	1.1	0.8
Coffee	1.4	1.2	0.8
Citrus other fruits	4.8	4.2	3.0
Eggs	1.1	0.9	0.7
Fresh beef	3.6	3.1	2.2
Fresh mutton	1.2	1.0	0.7
Fresh pork	1.0	0.8	0.6
Game, poultry	0.3	0.2	0.2
Milk	3.3	3.3	2.3
Pulses	5.6	4.7	3.4
Rice	1.1	0.9	0.6
Root crops	24.9	21.5	15.5
Spices	3.0	2.6	1.8
Sugar cane	16.2	20.2	14.6
Tobacco	1.4	3.3	2.3
Vegetables	10.5	8.8	6.3

In the calculations shown (Table 1) net, rather than gross, figures would have been preferable but were not available in all cases since the structure of the national income estimates for 1943 does not permit all

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deductions to be determined. The figures in column 1 result from dividing the gross figure for the individual commodities by the gross total of all items of primary agricultural production. The gross figure for primary agricultural production, according to the national income estimates, includes "cost of materials, fuel and power, containers, labour, management expenses and farmers' profits". To arrive at a net figure it would be necessary to make deductions for cost of materials, fuel and power and containers. This cost is estimated to amount to about £400,000 out of a total of £10,000,000 for primary agricultural production but the corresponding cost relating to individual items cannot be arrived at. It is improbable that any individual item is responsible for a large enough proportion of the £400,000 to modify substantially the figures shown in the table.

The figures in column 2 result from dividing the gross figure for the individual commodities by the gross total of all items of primary agricultural production plus the value of those carried forward to the secondary stage. From all items in the secondary stage it is possible to subtract the cost of raw materials and excise duty. To arrive at a net figure at the secondary stage further deductions in respect of fuel and power, containers, etc. would have to be made. It is possible to do this for the total of all the items, but only for a few of the individual items. In a few cases these deductions from the individual items and from the total were made and in no instance modified materially the relationships shown. In the case of tobacco the new figures were 3.3 and 2.2 for columns 2 and 3.

SOME ECONOMIC ASPECTS OF THE AGRICULTURAL SITUATION

The subject for discussion here is not the general agricultural situation but rather certain of the relationships which are influencing the course of economic expansion in Jamaica.

Agricultural change and trends take place more phlegmatically than one may realize and, by comparison, events in the industrialized sector of an economy can react sharply. Agriculture, like the ploughman, seems to wend its way wearily, without hurry. An example is the United States' experience during the last war. The better than average weather conditions, the large stocks of feed at the outbreak of hostilities and the increase in farm prices gave all encouragement for a rapid rise in production. In the five years 1939-44 agricultural production rose by 33% but in the same time industry increased its output by 135%.

#### BANANAS

A tale which points the moral of the sluggishness of agricultural change is that of bananas in the inter-wars period. The cultivation of bananas for export began about 1868 and by the early years of the twentieth century had considerably expanded, the maximum exports, reached in any one year, being 16 million stems. In 1912 the appearance

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of Panama disease was recorded which then promised to develop into the crop's most important pathological problem and drastic quarantine regulations including the fencing off of areas against animals were introduced and later relaxed. With each relaxation the devastation spread. Possibly, because of the hesitancy in putting adequate sums into research. the disease control programme in these early years is not particularly impressive. Thus, the chief measure in which hope lay was the finding of an immune variety of banana. It was desirable to secure breeding material from the Far East; arrangements for an expedition were nevertheless not completed before the 1939 war made it impossible. No alternative variety, acceptable both to the investigators and to the shippers, was planted in quantity to enter materially into the export trade. In spite of all this not only did the island's banana production continue to increase in the 27-year period after the disease was recorded, but by the mid-1930's Jamaica had become the biggest banana exporter in the world. The average exports for the three years before the war (1936-1938) were 54% higher than the average for the three years before Panama disease was recorded (1909-1911). From 1919 to 1938 exports increased so that the index of exports (stems) was 246 in 1938 (1919 = 100). In 1937 the industry's exports were the highest in its history (27 million stems). As areas went down to the diseases (Leaf Spot had also made its appearance) the crop, fighting to maintain production, retreated steadily westward in the island. One aspect of this retreat was that marginal fields on steep slopes, which might normally not have been put into row crops, were pressed into service and soil erosion contributed to the losses. The loss of shipping from 1939 to 1945 added a further complication. The effect of the diseases, although for nearly thirty years failing to stop the upward trend in production, was cumulative and is mainly responsible for a reduction in average exports for 1948-1950 (three hurricane free years) to 6,144,000 stems, 26% of exports in 1938. With this background the banana industry directed its programme in the 1950's to regaining some of the lost ground. Exports had risen some 19% between 1947 and 1949 but few believed that shipments in the immediate future would rise above 15 million stems. SUGAR

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Sugar, the chief crop produced in Jamaica, has, historically, interesting lessons to teach in regard to development. After emancipation, in the second quarter of the nineteenth century, there was a shortage of labour on estates for sugar production. By the third quarter of the century some of the colonies, notably Trinidad and British Guiana, obtained indentured labour from Africa and the East. With the Great Depression, beginning in 1873, the wholesale price level fell, in about two decades, by 30% while sugar prices fell by 60%. Unlike that of places like Antigua, Barbados, British Guiana and even Trinidad, Jamaica's proportion of total exports contributed by sugar sank almost to minor proportions in the aftermath (Table 2).

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TABLE 2. RELATIVE IMPORTANCE OF SUGAR AND BY-PRODUCTS

	I	ndustry's ex	ports % tota	al exports		
Year	Antigua	Barbados	Br. Guiana	Jamaica	St. Kitts and Nevis	Trinidad and Tobago
1892	99	99	98	62	100	69
1882	99	99	77	26	95	49 27 28
1902	83	95	71	15	80	27
1912	90	91	76	8	65	28
1922	66	95	56	23	71	31
1932	96	84	71	12	95	21
1942		78	42	52		31 21 12
1949	72	90	€6	50	90	15

By 1912 sugar's exports formed less than 10% of Jamaica's total. While other commodities, like bananas, proved more attractive sugar, relatively, was neglected. Sugar production had fallen from 21,000 tons in 1898 to 13,000 in 1914. During this trying period the policy of sugar management had an important lesson to teach those interested in development but one must hasten to add that the example to be followed was in neither the social nor the political field. The large plantation—with its size, its remoteness of the employer from the employee groups—seemed inescapably to lead to a social stratification which isolated the thinking, the interests, the sympathies of the one section of the society and to set it apart. The 1897 West India Royal Commission (26) stated:

"It must be recollected that the chief outside influences with which the Government of certain colonies have to reckon are the representatives of the sugar estates, that these persons are not interested in anything but sugar, that the establishment of any other industry is often detrimental to their interests and that under such conditions it is the special duty to see that the welfare of the general public is not sacrificed to the interests or supposed interests of a small but influential minority which has special means of enforcing its wishes and bringing its claims to notice".

The conduct of the sugar industry especially deserves study and regard in the field of economic policy. As far as agriculture in underdeveloped territories is concerned, Lewis (19) and others suggest that on a broad scale, perhaps the most urgent of all capital needs, in terms of increased productivity, is water supplies. The managerial interests in sugar in Jamaica even at the depths of the 1873 depression recognized that higher production would come with increased capitalisation and joined forces in supporting the biggest irrigation scheme undertaken in Jamaica. The Rio Cobre irrigation scheme was completed in 1876. There were then, as there would be now, doubts. Many arguments were used against this bold type of planning and capital investment. A contemporary writer on the subject in the Colonial Standard (7)

"The irrigation works have afforded excellent fattening ground for many a needy adventurer, the expenditure of this particular service having already reached a mammoth amount and needing, if their completion is ever to be compassed, a fabulous sum . . .". The criticism was not less in the legislature. One of the most senior members in the Legislative Council let his charges range from connivance and collusion of a member of the Committee to cheap political manoeuvring by the Governor. He, a planter himself, felt sure that the planters would not use the water and the irrigation works would be a "millstone round the necks of taxpayers . . . never will they pay their expenses". The concern was understandable. The cost of the works was about £126,000 when the Colony's budget was about £500,000. A corresponding proportion of the 1951 budget would be nearly £3,000,000 and Jamaica would today have at least as much misgiving about a development project involving investment of this order. The scheme proposed to provide water for 10,000 acres of cane and other crops, 9,000 acres of guinea grass and 22,000 acres of common at a time when the total acreage under cane was about 20,000. Although this area, the St. Catherine plain, is now one of the most productive agricultural units in the island, its use, as the acreages indicate at the time the scheme came into operation, was of a very "extensive" nature. The land to be irrigated consisted of only one out of four acres in row crops compared with three out of four in grass. Of the grass, one out of two was in 'common' probably requiring at least 4 acres to maintain one head of cattle. It is not surprising that for several years the scheme seemed to have little effect on production and as if to add fire to the fuel of the critics it seemed questionable whether the occupiers would utilize the water at all. By the late 1890's the significance of the water supplies made itself felt. A much more 'intensive' use of land began to emerge. 'Common' gave place to bananas and the project came to pay its way as well as to increase substantially the agricultural production of the area. By the 1950's the two agricultural districts concerned (Clarendon and St. Catherine) were producing over 50% of the Colony's sugar supply compared with 30% in 1897.

If one considers the agricultural output of Jamaica as divided between sugar on the one hand and all other agricultural output on the other, the production possibility curve type of analysis illustrates well the course which events have been taking in the past and are following at present. Jamaica for this argument (Fig. 1) divided her resources qualitatively and quantitatively between producing sugar on the one hand and other agricultural commodities on the other. If all her resources were induced into sugar production, she would obviously produce nothing else; if the position be completely changed she would produce no sugar, only other commodities. Point A, Fig. 1, illustrates the situation where there is utilization of total resources for sugar production; point B that for other agricultural commodities production; a

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labo ence point such as C denotes a situation when both sugar and other agricultural commodities are being produced.

From the period of the Great Depression to the end of the century the production possibility curves were not favourable to sugar production. One can say, therefore, that the curve ii in Fig. 1 illustrates the situation that took place when increased total output rose through a growth in population and activity. This increase was, however, associated with more attractive possibilities for other agricultural commodities than for sugar. A new phase began when the 1902 Brussels' Convention with its reduction of subsidies led, unexpectedly, to increased sugar consumption. The 1900-1902 average price per ton of sugar rose by about £4 per ton or 44% by 1913-1915 and the demand during the first world war continued to encourage production. There was then a set-back when the boom ended in the 1920's and prices fell steadily until the effects of the second world war were felt. On a 1939 base, the index of f.o.b. prices was 151 in 1925, 123 in 1930 and 85 in 1935.

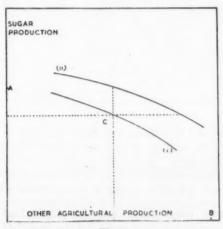


Fig. 1

The colonial sugar preference certificates came into force in the 1930's and limited the amount of sugar to be exported from the colonial empire; their main object was to maintain existing producers while discouraging the entry of new manufactures. Thus, the certificates operated in such a way that, if exports increased, the value of the certificates per ton fell. This did in fact happen in the case of Jamaica whose exports of sugar rose so that by 1943 the revenue from preference certificates fell by over 50% per ton. In that year, through joint action by the industry supported by other agricultural organizations and the labour unions, the method of awarding certificates was modified to encourage increased production. With this encouragement on the one

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ously vould rates proon; a hand combined with a more promising outlook for world demand for sugar and the sharp decline in the banana output on the other, management in the industry made vigorous effort to raise the island's output of sugar. In the 1930's Jamaica's output of sugar was the lowest of the major sugar producing British Caribbean units: in 1939 92% that of Trinidad; 62% that of British Guiana; 75% that of Barbados. One can reasonably assume that, with the influences at work, increased output in Jamaica would have been relatively rapid. This in fact has proved to be the case and Jamaica's production has risen more sharply than anywhere else in the British Caribbean. Nevertheless, it has taken Jamaica 12 years to double its average pre-war sugar production and this is another example of the deliberateness with which agriculture moves even when effort is directed to quick and urgent change.

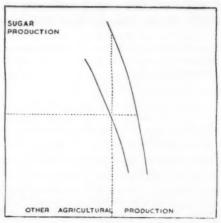


Fig. 2

The favourable possibilities for the production of sugar were established more securely during and after the period of the second world war. The curves in Fig. 2 illustrate the changed relationships. Sugar and its products making up only 12% of the island's exports in 1932 rose to 48% in 1951 and, for the first time in nearly 70 years, the industry rose to this position of dominance in the economic life of the community. The comparatively liberal relationships that evolved in Jamaica's social life are probably due to, among other things, the absence of such a dominance. Bananas, tobacco, citrus, dairying gave rise to numerically and economically independent small and middle-sized farms and trading units that achieved a security and independence which have had a marked influence on Jamaica's social development.

If one shifts the ground of the argument and considers not sugar in relation to other agricultural production but rather all agricultural the the son eco ma rise

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activity in relation to other economic activity, one can observe a relationship that is typical of a community like Jamaica in a period of development. In the 'production possibility' analysis illustrated in Figs. 1 & 2 there is the unreal assumption that Jamaica has fully employed its resources including labour and that the positions of choice are on, rather than off, the production possibility curves. This assumption (even if justified in the earlier years when there were a lower island population and a greater opportunity for migration) must be relaxed in the face of



Fig. 3

the increase, over time, of unemployment and underemployment. At the present time Jamaica's productivity position should be depicted as some point like A, Fig. 3, not on the curve. With Jamaica's expanding economy the general direction of progress can be indicated by the arrow marked i, on the assumption that the island's resources are giving rise to more agricultural as well as other economic activity. If one takes labour input as a measure of activity, the relationship is one of increasing "other" economic activity in proportion to agricultural activity and the direction of economic expansion is that of arrow ii; according to the figures available the number of workers in agriculture in Jamaica has ceased to grow. \*\*

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A Mr. George Cumper has drawn my attention to the fact that it is not possible to state with certainty whether or not the population in agriculture is declining absolutely as the changing methods of census recording do not permit accurate comparison. No uniform basis of classification exists for the earlier censuses. Thus in 1881 and 1891 all general labourers were reported as agricultural labourers. In 1911 and 1921 general labourers in Kingston were reported as non-agricultural, but in all other parishes were counted as agricultural labourers; a satisfactory classification was adopted only in 1943. The division between provision planters and labourers and between labourers and unpaid assistants and between unpaid assistants and persons outside the labour force is, under Jamaica conditions, hard to make.

Probably substitution of labour by other factors of production has taken place more markedly in sugar than in other industries but sugar does have the figures of employment in the industry well enough documented to show the trend. Basically the influences affecting employment in other agricultural industries bear resemblance to those at work in sugar. Man days lost through labour disputes in Jamaica are not high, if reference is made to comparable communities. On the other hand the proportion of the disputes in agriculture relative to those in the other sector of the working community is higher than might have been expected. According to the last census about 38% of the total number of wage earners and unpaid workers in Jamaica was engaged in agriculture. Only in 1948 were the man days lost in agricultural labour disputes, expressed as a percentage of the total man days lost in disputes, as low as is the ratio of wage earners and unpaid workers in agriculture to total wage workers of the community (Table 3). Thus, compared with TABLE 3. LABOUR DISPUTES IN AGRICULTURE AND OTHER OCCUPATIONS

Years		Man	days lost thr	ough lab	our disputes
	All Indu	stries	Agrica	ulture	Other Industries
	Days	Lost	Days	Lost	Days Lost
	No.	Total	No.	Total	Total
1946	238,520	100	104,699	44	56
1947	258,700	100	245,540	95	5
1948	10.347	100	3,866	37	63
1949	2,656	100	2,363	89	11
1950	75.212	100	57,625	77	23

the 38% mentioned above, 44% of the total man days lost in 1946 was due to disputes in agriculture, and 77% in 1950. Since, under Jamaica conditions, the proportion of unpaid workers in agriculture is probably above that in other industries, the proportion of labour agitation in agriculture exceeds expectation. The situation provides an interesting illustration for the thesis in Galbraith's book American Capitalism (10): that, in the world in general, monopoly in its worst form now

<sup>a</sup> (Continued from page 13.) The point at which the line was drawn clearly changed from census to census. Thus in 1891, 153,958 general labourers were recorded and 26,642 provision planters, whereas in 1911 general labourers were reported as 48,342 and planters as 98,062.

Distribution in prima	ary occupa	tions of the	e Jamaica	population	
Category	1881	1891	1911	1921	1943
Fishing Planters and labourers at-	1,830	1,989	2,900	2,893	4,287
tached to specific agricul- tural industries Provision planters, assist-	90,203	87,946	72,978	74,822	74,100
ants in cultivation and gen- eral labourers	116,156	180,600	192,378	198,806	203,857
Total	206,359	268,546	265,356	273,628	277,974

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more rarely exists but oligopoly does and can potentially be nearly as dangerous in an economy; that in the thinking of many the threat of one is as great as that of the other since agreements written and unwritten can potentially make market policy uniform; that in compensation strong bargaining power is in the world today met increasingly by strong "countervailing power"; that one of the commonest forms of countervailing power is the activity of the labour union.

In most of the Caribbean, sugar management has been long established. It has organized its policy in regard to the employer interests in a way that no other group or industry in the Caribbean has been able to rival over as long a period and as wide a territory. The result of this has been for a labour union organization to develop that is relatively strong, widespread and aggressive. This is a possible interpretation of the proportion of labour disputes in agriculture (Table 3). While comparable figures for agricultural wage movements are not easily available, it is almost certain that an effect of the labour agitation has been for sugar wages to rise. Management has reacted, as management may be expected to, in the face of rising costs of any single factor, and has taken steps to effect substitution of labour by mechanization and other means with the result that the fewer hands per acre relationship is becoming clearly defined in sugar (Table 4). The

TABLE 4. SUGAR TREND CALCULATION BASED ON EQUATION y = Mx + b

Item (y)	Values of	Mx + b	b (Average of Y)	% Annual increase or decrease of average
Canes (acres) reaped by estates	4213.13x -	<b>43</b> 732.21	43,732.21	+ 9.6
Canes (acres) reaped by cane farmers Number of labourers	3377.15x	- 30241.67	30,241.67	+11.2
employed per acre of cane reaped, for field operations by estates	—.011x -	0.53	0.53	_ 2.1
Number of labourers employed, per acre of cane reaped, in fac- tory for entire in-				
dustry	0023x -	0.08	0.08	_ 2.9

industry is extending its area under cultivation, with the cane farmers expanding at a somewhat more rapid rate than the estates (11.2% of the farmers' average compared with 9.6% of the estate average a year). In both field and factory there is a decline in the man units employed per acre reaped. The sharpest reduction is in the factory (nearly 3% per annum). In 1950 the sugar estates employed about 4,000 fewer field labourers for the acreage reaped than would have been used for the same acreage if the 1939-41 labour levels had survived. The circumstances indicate that, as far as the future of labour is concerned, activity in the

production of other goods and services must increase at a faster rate to make up for a relative decline in agricultural labour input, which is the point illustrated in Fig. 1 C.

#### MILK EXPANSION AND THE CONDENSERY

The marked increase of cattle, particularly for the production of milk as one of the major products, is a feature of recent agricultural development in Jamaica. A contribution of the Engledow report (8) is the emphasis placed on the more widespread inclusion of livestock in the enterprises of the farm. He recommended a steady transition to mixed farming which would mean a trend from shifting to permanent cultivation, complementary use of stock and crops leading to higher productivity of the land.

The proportion of the total cattle population slaughtered in 1950 was about double that in 1942 which has probably had a depressing effect on the growth of the cattle population. There was a sharp decline in draft animals, associated doubtlessly with the use of more farm machines and, in general, the numbers of cattle on large farms fell. Despite all this there was an increase in cattle numbers and in 1950 the total cattle population was estimated (4) at 248,000 compared with 230,000 in 1942. Cattle expansion was due essentially to an increase in dairy and dual purpose animals on small farms. Perhaps the most important influence was the establishment of a condensery in 1940 together with cooling, collecting plants. The condensery provides a good example, from the point of view of development, of the type of results that can be achieved by wise and strategic use of capital. For years there had been talk of a milk preserving project. The chief deterrent was general doubt as to whether sufficient fresh milk supplies

TABLE 5. FRESH MILK SUPPLIED (QUANTITY) TO CONDENSERY, JAMAICA.

Year	$\begin{array}{c} \text{Index} \\ (1942 = 100) \end{array}$	Year	$\begin{array}{c} \text{Index} \\ (1942 = 100) \end{array}$
1942	100	1947	208
1943	98	1948	253
1944	111	1949	295
1945	146	1950	308
1946	161	1951	296

would be forthcoming from the farmers. Two surveys were carried out, one in the early, and one in the late, 1930's. After the second survey those putting up the capital decided that existing and potential supplies warranted a venture and even then there was much misgiving. When the condensery came into operation the decline of banana cultivation made conditions particularly favourable for cattle expansion. Thus, St. Mary, formerly the main banana parish became the main supplier of milk to the condensery. The condensery tackled the whole project in a businesslike manner and offered certain attractive features, es-

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pecially as far as the small producer was concerned. Payment was made fortnightly; small producers who previously had no opportunity to dispose of their milk were given facilities for pooling; some milk routes at first had inadequate milk supplies to justify the costs but in many cases, with sharply rising supplies, later became economic. The result was that the milk receipts at the condensery were trebled between 1942 and 1951 with an increase of about 7% per annum of the average production during the period. If this is expressed in another way the index of milk deliveries was 308 in 1950 with 1942 as the base year (Table 5).

#### LAND SETTLEMENT

Some redistribution of land for settlement purposes took place in Jamaica on lands purchased in 1921 and intended partly for use by returning military forces from the world war. At first the lots were merely distributed with little supervision in regard to marketing and related matters, but in 1936 a Central Lands Advisory Board was established and in 1938 a Lands Department set up. By 1939 65 settlements were in existence and 35,000 acres allocated to settlers.

One of the major problems of land settlement, certainly in Jamaica, is a frequent misconception of what land settlement can and cannot achieve. As the 1938 Royal Commission points out it is no more than an orderly plan for setting up people on the land and providing such assistance as necessary in marketing, instruction and credit. Basically, therefore, the principles governing land settlement are the same as those applying to the farming problems of the area and if allotments are too small for economic farming the settlers may be doomed to failure from the outset. Land settlement has been most vigorously pursued in periods of marked unemployment and, although politically it has provided a good slogan against the "land barons", the urge has not been so much that of cutting up the larger properties as providing employment for the landless. The effect on employment may, however, be doubtful since it sometimes happens that the estates purchased for re-distribution already have tenants on them and the effect of the settlement is not necessarily to increase the number of people on the land. Such a result, although not intended, can be fortunate. There has been noticeably a declining emphasis on the possibilities of land settlement as a cure for the island's employment ills.

While land settlement is not a solution for unemployment in a community with the population pressure of Jamaica, it happens that, in times of falling agricultural prices, the estate finds it unprofitable to pay ruling wages. The factor determining whether estate or small holders will be the producing agent in a given area is not the relative productivity of the two but the wage-price relationship. In these circumstances estate cultivation may be abandoned in certain areas where land settlement can lead to continued production. It is therefore not sur-

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prising that much of the land settlement which has taken place in Jamaica has been undertaken on marginal lands.

By 1949 there were 116 settlements involving 119,000 acres which make up a modest part of the total area in production — about 5% of the total area and 7% of the land in farms of 1 acre and over. The average price per acre of land purchased is between £5 and £6. Agricultural holdings account for about 12% of allotments while village or house lots account for well over 80%. Of the agricultural holdings 74% are under 6 acres. Some land aggregation is taking place but it is also found that 4% of the agricultural holdings and house lots have been subdivided for children.

#### FARM RELATIONSHIPS

In Jamaica, as elsewhere in the world, the family is the typical farm operating unit (the plantation being another type) and a farm which can be handled in the main by the farm family has many considerations in its favour. In the farm family there are those who have varying amounts of spare time, who must be maintained whether or not they work on the farm and who, therefore, can provide some of the seasonal labour at lower cost. Family labour can adjust itself more readily to changes in wages which are prone to move less violently than farm prices. In consequence the family farm can survive the fluctuation of farm price movements in a way that is not easily possible in enterprises where fixed wages are involved. As the consumption from the farm is relatively steady and as this is a relatively high proportion of the small family farm's output this important sector of each farm's economy is not materially affected by outside price changes. It is also possible for the family farm to modify and integrate complementary enterprises which car stabilize the farm's ability to support the farm family in ways that are not open to wage labour.

Since the family is the prevailing operating unit throughout the world in general, the population pressure on the land is likely to be related to the size of a farm in a community. The average size of farms is 2.7 acres in Japan, 82 acres in England, 665 acres in Australia (2). There are modifications to this general relationship. As densely populated as is the United Kingdom, labour is so distributed in avenues of employment other than agriculture, that the farming population is only 7%; this means that the farms are larger than they would otherwise be. In British Guiana which has a total area of about 90,000 sq. miles and a total population of 425,190 one may expect the farms to be large. The population is mainly restricted to narrow coastal strips; as much of the area is below sea level at high tide, the costs of bringing land into agricultural production is impressive; the effective agricultural pressure on the cultivated land is about 1000 per square mile (20).

Small farms, associated with a high population pressure, are, for most enterprises, inefficient and largely so because too small. There are certain economies of scale which the larger farm enjoys just because it is the gwhile marl and under vant stand by the relation of the reduction of the reductio

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it is larger. It is more likely to be able to afford good equipment; to reap the gains to be obtained from a working force and management which, while dabbling in all trades, can specialize in some; to have better market and credit contacts; to afford an operator whose background and education make it possible for him to enter into the spirit and understanding of better techniques of production. Lack of these advantages has led to low levels of productivity and therefore to low standards of living in Tennessee, in Jamaica, in Ceylon. It was estimated by the Texas Agricultural Experiment Station that if there were an enlargement in the family sized farms so that the number of farms was reduced to two-thirds of the existing total, there would be an increase in output. The 1936 Jamaica Banana Commission published figures on yields of the crop in Jamaica (Table 6).

TABLE 6. BANANA YIELDS, JAMAICA

Acreage group	Yield per acre Stems Counts
Under 5	78 48
5-20	80 49
20-100	101 65
100-200	128 85
Over 200	142 90

The following is an extract from an economic survey of dairy farming in British Guiana published in 1943 (11):

"One well defined conclusion from this survey is that many dairy farmers operate too small a business; argument in support of this is that a fair per cent of the neighbours in the same district make higher profits out of a bigger business. Every economic survey completed in British Guiana has added data to confirm . . ."

Stockdale (28) pointed out that the yield per acre of sugar by large scale methods was, for the West Indies as a whole, double that from peasant holdings; that the peasant production of sea island cotton in St. Vincent averaged 42 lb. of lint per acre as compared with 162 lb. with estate agriculture; that bananas gave up to 400 stems per acre on well run large estates under irrigation, whereas peasant production rarely gave more than 150 stems; that in Barbados peasant farming yields were 20% less than in large scale agriculture. In Jamaica the higher capital value of buildings per acre on the smaller units and the low rate of institutionalized borrowing which is possible on small farms are two aspects of the same problem (Table 7).

TABLE 7. CAPITAL VALUE, MORTGAGES ON FARMS IN JAMAICA, 1942

	ILILIE I.	CHILITIE	VILLOIS, MOITIGI	20 011 1 11101110 111 011111111011, 1012
Size	of farm Acres	units	Buildings' va per acre (£)	
	25-49 10-24		3	18 15
	6-9		5	14
	4-5		8	15 15
	2		9	12

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re, for There ecause The smaller the farm (and no farm units are considered below 1 acre) the heavier the capital burden for buildings that has to be carried per acre of land and it cannot be said that the Jamaica farm buildings are unduly pretentious. Farms that are two acres in size must support, amortize and maintain a capital commitment of nearly £9 per acre for buildings compared with only half that figure for farms 10-24 acres in size. To weight the circumstances even more unfavourably against the small farmer, the smaller the unit the less does he appear to have access to institutionalized, and therefore the cheaper, forms of credit. With a unit of 2 acres on the average, he has a mortgage amounting to 11-12 shillings an acre but when it becomes a middle-sized farm (25-49 acres) he is able to get a mortgage loan of 18 shillings.

A field survey carried out among tobacco farms in Puerto Rico (23) throws light on some of the inter-relationships between size of farm units and some of the factors that provide a basis for high or low productivity. The purpose of the study was to discover the methods of credit financing tobacco cultivation. It reported that one of the most important elements in securing sound credit was the level of education of the farmer. Although attendance at school could be taken as only a rough indication of the standard reached, the study pointed out that the percentage of farmers having less than 4 years' school attendance was higher in the groups of those operating the smaller farms. The illiterate farmer was unable to keep the simplest accounts, was at a disadvantage in dealing with lenders and seemed to be "overwhelmed by a suspicion of papers or signatures" and therefore was inclined to prefer a more informal way of doing business. The more formal agencies, which provided credit at lowest cost, required signatures to documents. There was in consequence a tendency for the smaller farmers to have a lower proportion of their total liabilities represented by mortgage debt and a higher proportion in the hands of shops. While it was not possible to discover what were the differences in the cost of credit from various sources, it was found that there were many hidden charges attached to shop credit. Thus fertilizer from such sources cost 15% more than from the co-operative and lower prices were paid by such organizations as shops when tobacco was bought from the farmers.

As if to add to the perversity of the problem of the influences which tend to keep the productivity of small farms low, the small farms especially are required to have a high production because they survive in communities where the number of persons to be maintained by an acre is large. Jamaica has about one-seventeenth of its area level. At the subsistence standard of European peasants, Jamaica can expect to support in agriculture and resulting services 1 person for every 1½ acres of cultivable land. Instead the island has to support nearly 3 people for that area so that a too high proportion of the produce goes to maintain the merest standard of living. Little can be left over for capital accumulation—for better equipment, soil amelioration, improved stock,

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The circumstances affecting the course of agriculture in Jamaica, in some cases, have their origin within agriculture itself and in other cases outside or without agriculture. There is an immediacy about a plant disease, hurricane damage, a new crop variety. In competition for attention, problems like the unemployment of excess farm population, which must look for its employment outside of agriculture, appear remote.

In the world in general advance in production per man has been greater in manufacture than in primary production. If, therefore, prices had reflected this progress one could have anticipated a trend in favour of primary products but quite the reverse has taken place. The terms of trade moved steadily against primary products right up to the second world war and about 32 per cent more primary products had to be exchanged for the same amount of manufactured products in 1938 as in 1914. During the second world war period the trend was reversed somewhat as could be expected from the relationship that at the beginning of rising prices, agricultural prices would rise faster. The rate of growth of primary production has been falling and of the various groups which make up the heading, food products show the slowest rate of growth. Food production has for some time been growing more slowly than world population and agricultural production increased by 0.3% per annum between 1937 and 1950 compared with an estimated population increase 4 times as great. From this it would seem likely that terms of trade will continue to swing somewhat more favourably to agricultural products.

#### EMPLOYMENT

The long term or cyclical relationships which are mainly world-wide in cause and effect have influenced the degree of employment, or lack of it, in Jamaica and a small community, while playing only a minor part in cause, is exposed to the full blast of the effect. Because Jamaica's chief items of production are agricultural, demand for them fluctuates relatively violently in comparison with that for finished goods. As a consequence of these relationships primary producing countries have paid dearly. After the 1873 depression when world prices fell but sugar prices fell more than most, emigration somewhat eased the unemployment situation in Jamaica. Thus, the paradoxical situation existed that at a time when East Indian indentured labour was being brought into the island to work on sugar estates, twenty times the number of emigrants left Jamaica to seek work in the neighbouring republics. In the depression of the 1920's and 1930's the island's economy was to some extent cushioned by the relative prosperity of the banana industry which, despite disease, continued to expand and for which demand was ahead of supply. There was nevertheless widespread unemployment, and extensive labour unrest resulted. Labour disturbances took place on the north coast in May 1935, in the western sugar belt in 1938 and an island-wide strike a little later in the same year.

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The short term influences on employment are due primarily to seasonal causes. The chief factor is climate but there are also customs which play a part. The figures on seasonal variation show that the price index for eggs in Jamaica is 77 in April compared with 140 at Christmas time. The average employment on relief works in Jamaica in 1943 was nearly 26% higher in December than in October. In 1944 the Labour Department observed that the regularity of employment is predominantly affected by the trade cycle. (1) It would have been well also to mention seasonal effect because in the report for the preceding year the department had recorded that the average number of weekly employees in the sugar industry in field and factory was 17,000 compared with 10,000 out of crop, a difference of 7,000 or a fall of some 41%. In Antigua in 1946 nearly 30% less were at work out of crop. In Trinidad in 1946 the range of employees in the industry from the peak to the lowest level was 22,000 to 12,000. In Puerto Rico those employed in agriculture work for 8.5 months in the year.

Seasonal unemployment in Jamaica is marked (Table 8). In agriculture, for example, 7 out of every 10 males employed were out of work for at least three months and the position was even worse in regard to women. The unsettled outlook for employment, as bad as it was in agriculture, was more so in the construction industries. In such a frame-work it is not surprising that persons in the construction trades lack incentive to put the time and investment into the degree of training requisite for raising the levels of skills. Although a much

TABLE 8. GAINFULLY OCCUPIED POPULATION, JAMAICA, 1942

	Total gai occupied tion		al wage arners	Wage earn work for 3 more in 1	months or
		Male	Female	Male	Female
	%	%	%	%	%
Agriculture	44	42	27	72	82
Manufacture	12	7	3	53	54
Construction	7	7		76	
Transport and communication	2	5	1	52	26
Commerce and finance	e 8	2	3	22	33
Professional service	2	1	3	16	16
Public service	2	2		21	10
Personal service	16	6	47	37	56

smaller part of the work force was in manufacturing industries, those that were had a better record of employment. Compared with 7 out of 10 in agriculture, only 5 in manufacture were unemployed for as long as 3 months in the year. Due to unusually high turnover in employment in the personal services women were faced with a worse outlook for steady work in this category of employment than in manu-

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facture. So great was the turnover that nearly 6 out of every 10 women in the personal services were unemployed for more than 3 months in the year. Men in the personal services had a much better record for stable employment. Nevertheless, personal service, as bad as it was, offered more likelihood of steady employment than agriculture. This, to some extent, explains the continued trek of country youth to the towns.

Jamaica's heavy population in relation to its resources leads to permanent and persisting unemployment but even more to a situation in which some of those who, working on their own account, could be withdrawn from occupations without a reduction in output even if there were little or no capital substitution. Underemployment is difficult to measure because it does not appear in the unemployment statistics but the pressure to share work and against labour saving devices is an important influence in keeping productivity low. In the United States it is estimated that five million left the farms between 1940-44 for the armed services, yet agricultural production expanded by one-third (2). In this case, however, there was substantial capital substitution. The Royal Institute of International Affairs estimated that there was 20-25% surplus agricultural population in Eastern Europe and about 50% in Egypt (30 and 6).

## LABOUR ORGANIZATION

The labour force at the last census (1943) was about 560,000. Of these about 1 in 27 was an employer, 1 in nearly 4 an own account worker, 1 in 2 a wage earner, 1 in 11 an unpaid family worker.

The gainfully occupied population is predominantly in agriculture (about 44%) and next in relative importance is personal service (16%). The number in manufacture is third in importance and has increased substantially so that there were nearly 60% more in 1947 than in 1942.

The first trade unions were established in 1918, the first Trade Union Law passed in 1919 and, as is the history of labour movements, the mortality rate of the unions has been high. Approximately two unions have been started for every survival. Up to 1937 the movement made little progress and at that time gross union assets were estimated at less than £150. The sustained unemployment of the 1930's, aggravated in some cases by the pushing westwards of the main crop (bananas), culminated in the labour troubles of 1938, which became island-wide. Out of this the Bustamante Industrial Trade Union was born and soon became the largest organized body of labour. Agitation, spreading throughout Jamaica and other Caribbean units, led to the appointment of the West India Royal Commission in 1938. The Commission's observations were unusually critical of the inadequate rights enjoyed by labour in organizing itself. It attributed the leadership in the labour organizing movement to the considerable

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numbers of emigrant West Indians who had gained experience in trade unionism abroad but who had returned home because of the

world-wide depression. The report stated:

"Successive Secretaries of State have spoken publicly of the need for encouragement of trade unions in the Colonial Empire . . . Despite this, we were unable to discover that any real effort had been made until quite recent times to assist their function . . . one explanation may be . . . the influence of powerful vested interests".

Up to that time not only was there in Jamaica no protection of trade unions against actions for damages resulting from strikes, but the Government had expressly requested the omission of any such safe-

guard in its 1919 trade union legislation.

In February, 1939, labour unrest continued and a Trade Union Council was formed in an effort to assist in the orderly and progressive development of the trade union movement. Almost at the outset the largest union broke with the Council and this lessened the effectiveness of the Council. In the same year a Government Labour Department was established.

With the economic changes brought about by the war a period of relative quiet from 1940 followed and one of the characteristics of the year was the substantial fall-off in dues paying members of the movement. Upon renewed agitation by the unions the then Governor, using his war-time powers, interned the leader of the largest union and promptly union membership revived vigorously. In the year 1941 the first collective agreement by organized labour was made with the sugar industry and some 40,000 members benefited from the provisions. In 1942 legislation was introduced forbidding workers in essential services to strike without reference in the first place to the Labour Department and, as a kind of appeal court, the Industrial Tribunal.

In 1944 a new and more liberal constitution, making provision for adult suffrage, was introduced in Jamaica. Labour unions formed political affiliations which made their power all the greater.

A feature of this period was the formation of the employers' associations to collaborate in the better understanding and solution of labour problems. By the end of 1944 these organisations were speaking for and representing more than 22,000 employers and proprietors.

Out of a labour force in 1950 of about 630,000 the wage earning force totalled 319,000 and had about one in every five of its members belonging to unions. The growth of the labour union movement is indicated by the circumstance that as recently as 1938 only one out of every two hundred and fifty wage earners belonged to unions.

#### POPULATION

Visitors from richer communities who come for the first time to

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not the Com prob mea popt Aust a po whit Euro of w calci her large anot addi To p have Engl herse popu cong some probl Cana the Caribbean will, when feeling intimate enough, sometimes confess to the natives that in the new surroundings the most impressive thing is the scenery-its grandeur and its squalor. The squalor is not explained away since other parts of the world, they may point out, are mainly agricultural but do not present poverty in like degree; the most often quoted examples are New Zealand and Australia. choice is not fortunate because New Zealand has some 30% of its work force in industrial occupation (approximately the same as in primary production) and Australia has one of the highest proportions of workers in industry in the world. The Scandinavian countries would be a better example but even in those instances comparisons must have reservations. Thus, the dairy industry of Denmark depends very considerably on an edible oil industry in which the nuts are imported, the oil extracted and the cake fed to stock. It is a commentary on this relationship that the human consumption of margarine (made from the edible oil) in Denmark is higher per head than anywhere else in the world. There is, of course, no reason why a community entirely dependent on agriculture should not have as high a standard of living as a more industrialized country.

A more pertinent explanation lies in the population pressure in the several countries and illustration enough is within the British Commonwealth itself. The British Isles, if it had to shoulder a problem similar to that of Barbados, would have, as a preliminary measure, to be deprived of its coal and iron mines and then the total population of France, Germany and Switzerland brought in to swell its total to a round figure of approximately 160,000,000 souls. Australia would be comforted to realize it could never get itself into a position comparable with Jamaica's as long as it held fast to its white Australia policy. It would absorb the 1940 population of all Europe, all the whites of the three Americas and then having run out of whites bring in all Africa as well. It may at first seem unfair to calculate Australia's ability to maintain population on the basis of her total area since one acre out of three is unusable as desert and a larger area can support only a sparse population, but the authorities consider that only a quarter at most of Jamaica's land is arable with another quarter usable as pasture of one kind or another. In addition Australia has coal, hydro-electric power, gold, zinc, silver-To place itself in a comparable position with Jamaica, New Zealand would have to carry a population, in addition to her own, nearly as large as England's. If Canada was going to tackle a like problem she would find herself supporting, in excess of her own numbers, approximately the total population in 1940 of all Europe, all Africa and India. Nor does this conglomeration sound as fantastic as it may first appear since, with some modification in ratios, it is precisely the type of social and ethnic problem which Jamaica is attempting, with some resolution, to solve. Canada with experience in the less complex situation of its French

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and English speaking ethnic groups can be pardoned for viewing any such experiment without enthusiasm.

About a century of the island's history is covered by census records, from 1844 to 1943 (Table 9). The chief feature of this century is the steady growth of the population and its end, unlike its beginning, is characterized by marked population expansion. Emphasis in the 1830's and 1840's was on immigration to compensate for the workers who were leaving the plantations and for the declining labour force. As Roberts (27) points out this decline was to be expected from the high mortality and the peculiar age distribution associated with the slave policy. Emphasis, then on finding labour, is now on providing employment. The change has been effected primarily by a high rate of increase and the two main factors affecting this in the Jamaica

society are fertility and mortality rates.

Despite the difficulties of studying fertility due to the high rates of illegitimacy (70 per 100 in 1950) there is a number of indices available for the study of this aspect of the problem. The crude birth rate (births registered per 1000 persons) varied between 37 and 41 and was maintained at about 38 between 1881 and 1910. decreased steadily in the following 40 years to 32. Lampe (18) has shown that the fertility rate (children under 5 per 1000 women aged 15-44) is much lower in the urban centre, the fertility ratio being 515 for all Jamaica compared with 258 for Kingston. This trend in fertility is also in evidence in the rural areas contiguous with the urban centre and is not of recent origin; in 1881 the island's fertility ratio was 552 compared with Kingston's 358. Indices based on women of child bearing age as well as indices based on a corresponding male population are of relevance in the study of Caribbean population. Females (15-64) exceed corresponding males by 9% in Jamaica and by much more in other territories (over 30% in Barbados and the Windward Islands). The gross reproduction rate based on females for 1945-47 is 1.81 for Jamaica compared with 2.67 for Trinidad and Tobago, an indication of the relatively lower fertility conditions in Jamaica.

Jamaica has been traditionally a healthy island by comparable standards and with rare exceptions mortality figures have not been high. Data available since 1879 show that only during the 1918 influenza pandemic did the rate exceed 30 per 1000. There was no downward trend until the 1920's and 1926-30 was the first quinquennium in which the mortality rate was below those of the recorded quinquennia of the previous century. The death rate fell from about

24 at the beginning of the 1920's to 14 in the 1940's.

This combination of circumstances—a slowly declining birth rate associated with a rapidly declining death rate—has led to a fairly steady total growth. Jamaica's population while not increasing as rapidly as the other Caribbean colonies' has a higher percentage of adults presenting a picture by comparison of a slowly aging com-

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TABLE 9. JAMAICA'S POPULATION

Year	100		Persons No.	
1844			377,433	E1 240.44
1861			441,264	
1871		* *	506,154	
1881	**		580,804	
1891			639,491	
1911			831,383	
1921			858,118	
1943	* *		1,237,063	
1946	**		1,304,100	
1951		**	1,421,600a	
1956	* *		1,552,700a	
1961	**	0, 0	1,700,800a	

a Projections by Roberts (27)

munity. The estimated increase in total population is from 1,200,000 in 1943 to 1,300,000 in 1946 to 1,400,000 in 1951 and to over 1,700,000 in 1961. Lower mortality rates will mean an increasing entry into the labour force. Roberts estimates that in the age-group 15-64 in 1961 there will be 501,000 males and 533,000 females. The males in that age group at present are estimated to be over 400,000 with an annual increment of about 8,000.

#### PART II

### A FIVE-YEAR ECONOMIC DEVELOPMENT BUDGET

Part I of this paper discusses some of the features of Jamaica's economic life. One feature is unemployment; the chief industry, agriculture, even if expanded, cannot alone remedy the situation. The development of manufactures seems a promising means of utilizing the human resources with the object of increasing the island's economic wealth.

In Part II of this paper, the premise is that new industries are desirable and the chief discussion attempts to answer the question: how does a unit like Jamaica having the will and the wish to bring new industries into being set about the task? To provide an answer in realistic terms a study has been made of the development programmes and the evaluation of these programmes in comparable territories. Such territories include: Mexico, Mississippi, Puerto Rico, Trinidad, Surinam, Holland, Haiti, Dominican Republic. In addition to a study of the successes and failures of development measures, visits to the communities (except Mexico and Surinam) have helped to provide a better understanding of the working of the several programmes and an opportunity for personal judgment. On a basis of this judgment a development budget is presented which attempts, on the one hand, to benefit from the experience, good and bad, of development programmes in territories such as those listed and, on the other hand, to prepare in concrete terms a financing programme practicable in terms of Jamaica's economic and planning possibilities.

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fairly ng as age of comJamaica's source of employment is predominantly agricultural and, for the foreseeable future, is likely to remain so. Its agricultural resources, in terms of arable land, are limited. The ability to absorb employees into agriculture is also limited and the census figures indicate a decline in agricultural employment of about 20% in 20 years, although the figures must be taken with reservation (see p. 13). While the birth rate has been falling, the death rate has been falling faster. There is a net increase in population of about 30,000 a year. At the last census taken about 10 years ago, the unemployed figure was 90,000 in addition to 51,000, between 15 and 24, who wanted work but had not yet held a job. There is little doubt that current unemployment and underemployment are substantial but precise figures are unavailable. The order of the figures on unemployment even if open to question—as some claim that is is—nevertheless makes it clear that plans for development should provide as an initial step employment at least for the increase in population.

The number of gainfully occupied is known (5). This does not include women doing housework in their own homes without salary or wages and who are termed "home-makers". Projections for the population are available up to 1961, including sub-divisions for the various age groups. The annual increment in the gainfully occupied group can be derived from these two sources and is shown (Table 10) to be somewhat over 12,000 for the five-year period ending 1956 and 14,000 for the five-year period ending 1961. Avenues into which some of the annual increment in the labour force may be directed are migration, the growing tourist industry, bauxite. The mean number of people leaving the island exceeded that arriving in the three-year period 1949 to 1951 by about 2,000 and although all of these are unlikely to be in the labour force, the total number in the absence of supporting information, is allocated (Table 11) to the group to be deducted from the increment in the labour force seeking employment.

TABLE 10. JAMAICA'S GAINFULLY OCCUPIABLE POPULATION

Group	1943	1946	1951	1966
Gainfully occupiable Increment for 5-year period	559,000	591,000	652,000 61,000	714,000 62,000
Annual increment for 5-year period			12,000	12,000

The Tourist Bureau estimates that tourists spent in 1951 about £4,000,000, 90% of whom, incidentally, were from the U.S. and Canada (unpublished data). This expenditure should have absorbed in direct and ancillary services, about 4% of the labour force, which is a high ratio. If the industry continues to expand so as to absorb the same

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proportion of the population increment, this would account annually for, say, 500 new jobs. The bauxite industry estimates that it will absorb about 3,000 workers during the construction period and, during the production period, about 800 rising to 1,200 or 1,400 a year. These companies are likely to move rapidly to the production phase. It seems reasonable to base a labour absorption figure on the maximum number of the production period; this with ancillary service jobs may total over 2,500, which, over a five-year distribution, can be based on say 500-600 annually. Beveridge estimates 3% of wage earners, equivalent to about 2½% of the occupational group will inevitably be unemployed. In the Netherlands' Planning Programme (21), the working basis is  $2\frac{1}{2}$ -3%. Some authorities prefer a lower per-centage but this paper recognizes its bias in attempting to present the unemployment problem in its most manageable terms and the part of the increment of the working population accepted as inevitably unemployed is 400. Perloff (25) estimates that for every 100 people employed directly in industry in Puerto Rico another 80 are employed in services; some estimate the ratio to be somewhat higher. Approximately 4,600 (Table 11) remain to be absorbed directly into industry annually in Jamaica after deductions are made for emigration, tourism, bauxite, frictional unemployment and ancillary services.

TABLE 11. PATTERN OF EMPLOYMENT IN JAMAICA 1951-56 WHICH IS BASIS FOR DEVELOPMENT BUDGET

Employme occupiable	mployment of Jamaica's 1951-56 gainfully cupiable population increment (Annual estimate)				
	Emigration				2,000
	Tourism				500
	Bauxite industry				600
	Frictional unemploy	ment .			400
	Manufactures, direct				4,600
	Manufactures, ancill	ary			3,900
		<u> </u>			12.000

There is much discussion in the literature on the order of capital required per worker directly absorbed into new industry in developing countries. The capital invested per worker employed can be expected to range from about £600 for light industry to £2,000 and over for heavy industry and even for enterprises such as food processing, textiles and services. In Jamaica the sugar factory capital invested, per factory labourer employed, is £1,100. Lewis suggests for the Caribbean an approximation of £1,300 per worker in manufactures (20). A group of experts reporting to the U.N. have observed that the capital figure required is unlikely to be less than \$2,500 (29). In Puerto Rico it is estimated "to require an average investment of somewhere more than \$4,000". It is not realistic to base investment on a figure lower than that obtaining in

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about anada direct high same sugar manufacture although one may make out a good case for accepting a figure higher than sugar's since the industry's investment has accumulated over the years and would be higher if based on contemporary market values. In the light of this, £1,100 per worker in this development budget is the allocation for capital in land, buildings, equipment, working capital. Apart from capital in these items (land, buildings, equipment, working capital) experience under Puerto Rico conditions indicates a requirement of about £150 per worker in subsidies and promotional activities.

The investment involved in putting to work in industry 4,600 workers with a capital investment of £1,100 per worker (for land, buildings, equipment, working capital) is £5,000,000 plus £700,000 in round figures for subsidies and promotional activities (at £150 per worker). The working basis for the calculations in the budget is that each of the five years under consideration will require an investment of £5,700,000. Activities and investment are likely to be less in the earlier years and to increase in the later years. This is probable, whether one wills it or not, and can, to some extent, be justified by the bauxite employment schedule; although a deduction of 500 is made annually for bauxite, direct and indirect employment, the total figure of 2,200 should be absorbed into jobs almost at once.

In the next step (Tables 12, 13, 14, 15, 16, 17) the development budget shows the allocation of investment of the £5,700,000 between operating capital, buildings and houses, equipment, special aids and subsidies, administration and promotional activities (Tables 12 & 13). The aids and subsidies are then distributed in the main to their several heads (Table 13) in order to make it easier to consider the whole programme comprehensively under the broad heads: operating capital, buildings and houses, equipment, administration and promotional activities. The order of financing involved is of such proportions that one can presume to put it forward only if one is prepared to consider in some detail the method of making available the required funds. Promotional activity, although appearing last in the list of investment headings above, needs to be considered first in plans for a development budget for Jamalca.

#### BACKGROUND AND PROMOTIONAL ACTIVITY

There has been notable evolution in regard to the approach to industry location theory. A good example is the Location Theory and the Shoe and Leather Industries (13) written by E. M. Hoover. This book published in 1937 deals with the factors affecting location but places little emphasis on community incentive activity. In a later book, the Location of Economic Activity published in 1948 he shows the evolution in his and contemporary thinking (14). Perloff's book Puerto Rico's Economic Future published in 1950 (25) indicates the change in outlook and emphasis on planning. Lewis in his Indus-

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trialization of the British West Indies published in 1950 (20) says simply, "the ingredients of industrialization are markets, resources and economic policy". If one accepts this approach to the location of industry, the provision of jobs for the annual labour force increment in Jamaica requires that policy is implemented by the public and private sectors of the economy.

An Industrial Development Corporation has been established in Jamaica (Industrial Development Law, 1952). Provision is made for a membership consisting of one official member (the holder of an office of emolument under the Crown in Jamaica) and not less than seven other members appointed by the Executive Council. None of these may be a member of the House of Representatives or an unofficial member of the Legislative Council. The Corporation has been given wide powers -"to stimulate facilities and undertake the development of industry". It is a body corporate, may sue and be sued in its corporate name, may borrow or grant loans or make investment of money, acquire or dispose of property. The Corporation has the power to delegate authority to any member or committee to carry out on their behalf any duties the Corporation may determine. The Executive Council reserves authority to give to the Corporation direction of a general character as to the policy to be followed in matters concerning the public interest, which includes direction as to the disposal of capital assets or the application of proceeds of such disposal. The financial resources of the Corporation are derived from: sums provided from general revenue, from loan funds, repayment of loans and interest, monies earned from property investments, mortgages or debentures of the Corporation, loans by the Corporation. The Corporation is empowered to make loans at "such rate of interest as they may deem fit". The Corporation on its establishment was granted a sum of £100,000 by the Government in the first instance and provision subsequently made for an allocation of about £250,000 to cover an unspecified period.

The economic development budget outlined in this paper assumes that Government and its agents will give the lead in initiating the financing of the industrial programme. Territories in the process of development and of financing an undertaking of this type often find it expedient for the State to initiate certain expenditure and activity. Some of the investment is later retired and replaced by funds from entrepreneurs, shareholders, creditors, who are persuaded that the outlook for the undertakings in question is attractive enough. This sequence has been found to take place in other underdeveloped territories—and, for that matter, in developed territories too—and the ratio of funds planned to be forthcoming from the Jamaica Government to funds from other sources is 1 to almost 2. For this substantial support from other sources locally and abroad, promotional activity is an important field of achievement.

The development budget contemplates that entrepreneurs are to be

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TABLE 12. DEVELOPMENT BUDGET ANNUAL INVESTMENT FOR 1951-1956 REQUIRED FOR ANNUAL ABSORPTION OF 4600 WORKERS DIRECTLY INTO INDUSTRIAL JOBS.

Investm	nent category	Expenditure %	Sub-total	Total £
(a)	Capital investment			
(i)	Operating capital (not including subsidies)	7- 8	400,000	
(ii)	Buildings & houses	38-40	2,250,000	
(iii)	Equipment (not including subsidies)	40-42	2,350,000	5,000,000
(b)	Special aid or subsidies Training of workers (at different levels)	2- 3	140,000	
	Building subsidies (e.g. payment of rent in early period)	2- 3	120,000	
	Special aid to key industries	1- 2	100,000	
	Equipment subsidies especi- ally in regard to shipping	1- 2	90,000	450,000
(c)	Administration Administration and promotional activities TOTAL	4- 5	250,000	250,000 £5,700,000

TABLE 13. ANNUAL INVESTMENT (SHOWN IN TABLE 12) WITH SUBSIDIES REDISTRIBUTED TO MAIN HEADS.

Investment category	Sub-Total	Total %	Total £
(a) Capital investment			
(i) Operating capital			
Normal operating capital	24-25	7-8	400,000
Part cost of equipment	15-16	4-5	250,000
Part cost of buildings	41-42	11-12	680,000
Part cost of workers' train		1- 2	90,000
Cost building subsidy (ren	ntal) 7-8	2- 3	120,000
Cost shipment subsidy (edment)	quip- 5-6	1- 2	90,000
Sub-total	100.0	28-29	£1,630,000
(ii) Buildings and houses			
Shared buildings	10-11	2- 3	170,000
Standard buildings	51-52	14-15	810,000
Special buildings	15-16	4- 5	250,000
Repairs to existing building		2- 3	130,000
Housing (residential, etc.)	13-14	3- 4	210,000
Sub-total	100.0	27-28	£1,570,000
(iii) Equipment (including ne			
subsidy nor operating ca	apital		
allocation)	100.0	36-37	£2,100,000
(b) Special aid or subsidies			
(i) Residual from training as			
to general programme	100.0	0.8-0.9	50,000
(ii) Aid to key industries	100.0	12	100,000
(c) Administration			
Administration and	pro-		
motional activities	100.0	4- 5	250,000
TOTAL		100.0	£5,700,000

DEVELOPMENT FUNDS REQUIRED ANNUALLY. THEIR ORIGIN AND DISTRIBUTION TABLE 14.

Investment	Or	Original and residual Government Commitment	sidual Govern Itment	nment	Entrepreneurs Other investors' and investment creditors' investment	Other in creditors'	Other investors' and creditors' investment	Total final investment
	Original Government Sale of commitment Government (not includ- backed ing aids and securities subsidies)	Sale of Government backed securities	Aids, subsidies & expenses	Aids, Residual subsidies Government & expenses commitment		Local	Abroad	
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Operating capital Buildings and houses Equipment Administration	116.000 1,025,000 1,426,000	717,000 538,000	300,000	416,000 308,000 888,000	1,014,000	200,000 457,000	805,000 538,000	1,630,000 1,570,000 2,100,000
expenses, promotional services	1	!	250,000	250,000	ı	I	t	250,000
ing programme	į	-	20,000	20,000	1	1	1	20,000
	1	1	100,000	100,000	ı	1	1	100,000
	2.567.000	1.255,000	700,000	2,012,000	1,688,000	657,000	1,343,000	5,700,000

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TABLE 15. CONTEMPLATED SOURCES OF FUNDS REQUIRED ANNUALLY

Sources of funds	Jamaica Government investment	Local sources other than Government	Sources abroad	TOTAL
Residual Government commit- ment				2,012,000
Government residual commitment of £2,012,000 a year met by 20 annual instalments of £600,000	2,012,000			
Entrepreneurs' investment				1,688,000
Entrepreneurs funds		170,000	1,518,000	
Other investors' & creditors' investment				2,000,000
Purchase of industrial securities (local)		75,000		
Bank and other creditors advances (local)		125,000		
Mortgage loans (local)		457,000		
Purchase of Government backed bonds (with real estate paper collateral) by private capital (abroad)			75,000	
Encouraged & increased pur- chase of Government backed bonds (with real estate paper collateral) by banks & insur- ance companies doing business locally, registered locally and abroad			125,000	
Purchase of Government backed bonds by U.K. conceiv- ably through Colonial Devel- opment Corporation			500,000	
Purchase of Government backed bonds (with real estate paper collateral) by public bodies elsewhere in Common- wealth, e.g. Canada			200,000	
Purchase of Government backed bonds by international organizations			443,000	
TOTAL	2,012,000	827,000	2,861,000	5,700,000

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TABLE 16. DISTRIBUTION OF FUNDS AND THEIR SOURCES

Investment category	% total residual Government investment	% total entrepreneurs' investment	% other investment (local)	% other investment (abroad)
Operating				
capital Buildings,	21	60	30	_
houses	15		70	60
Equipment Administrative expenses and promotional	44	40	_	40
activities Residual from training	12	_	-	_
programme Aid to key	3	_	_	-
Industries	5		_	

TABLE 17. THE CONTEMPLATED RATIOS IN INVESTMENT FUNDS

Source of funds	% total expenditure
Government	35
Entrepreneurs Other creditors and investors	30
(a) Local	11
(b) Abroad	24

REACTIONS OF A MISCELLANFOUS GROUP ASSOCIATED WITH LOCAL GOVERNMENT TABLE 18.

	F	or tl	For the Island		H	or Inc	For Individual's Parish	arish
Policy or project regarded by a group of local government asso-	Number	Jo	Number of times mentioned	tioned	Num	ber of	Number of times mentioned	tioned
clates as navnig high priority for encouragement of new industries.	Total	1st	2nd	3rd	Total	1st	2nd	3rd
Agricultural activity	17	203	6	2	24	10	6	5
Tax concession and subsidies	00	ıG	-	73	1	1	0	0
Responsible labour relations	67	0	2	0	)	1	1	-
Industrial estate	2	1	1	0	2	0	2	0
Power & hydro-electric facilities	11	က	1	7	9	2	2	2
Improved credit	1	-	0	0	67	0	1	1
Vocational and technical training	4	-	1	73	က	1	1	-
Government action	6	,	-	_	-	-	-	C

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autho ant th information induced by incentives to invest. Participation in the new ventures by this group, on a scale even approximating what is desired, will be obtained only by an attack on the problem of attracting industries on a wide front by Government leadership and incentive action. Carefully selected representatives, acting on behalf of the Jamaica community in centres where funds and entrepreneurship are most likely to be found together (places like the United Kingdom, the United States, Canada) can be effective. Such representatives, having an intimate knowledge of the island's conditions in general, including an understanding of the aims of the industrialization programme, can, by their resourcefulness and enterprise, influence the degree to which the entrepreneur from abroad will select Jamaica for a new or a branch production unit. This policy of aggressive salesmanship which is witnessed at work in communities as different as Holland (Industrialization Section, Ministry of Economic Affairs) Puerto Rico (the Economic Development Administration) and West Cumberland, England (West Cumberland Industrial Development Co.) is now regarded as routine. Jamaica, if bringing herself to the attention of many manufacturers, will by a few be chosen. The manufacturers who are to be attracted may be divided into three groups; first, those who have some capital; second, those who have some capital and manufacturing know-how; third, those who have some capital, manufacturing know-how and market contacts. The greatest of these is the third. Many a manufacturing enterprise in a developing country like Jamaica has overcome its production difficulties and come to grief through difficulties in disposal. An entrepreneur with his sale or distribution outlets established, if persuaded to start an industry, has such a high chance of success that his attraction to Jamaica is likely to be one of the most productive forms of promotional activity. Efforts to attract are likely to succeed only if they take advantage of the written as well as the spoken word. The written word includes attractive brochures on opportunities in Jamaica, the personal letter from individual to individual and good press contacts. The paid advertisement may have some advantages but the informed article, written sympathetically in metropolitan newspapers and magazines, receives increasingly conscious effort in promotional activity. In an industrialization programme one cannot wait until the interested manufacturer comes to Jamaica—but rather should a representative of the development programme write or speak to him in his London or New York office and resourcefully argue the advantages of production in Jamaica. A recent report indicates that Puerto Rico which has established promotional activity offices in the United States will shortly be opening one in London.

Development organizations place much importance on centralized authority and information. Potential entrepreneurs consider it important that, as much as possible, all required action be taken and all relevant information given in one centre. Someone starting a new industry, coming from within or without the island, can easily receive enough

frustration to offset good preliminary work that has been done earlier if there are too many authorities to make decisions or if there is not easily available advice in regard to legal ramifications, training of labour, provision of readily occupiable buildings.

However well conceived the promotional effort, expansion of manufactures will require a good deal of incentive in a new industrial location and the next step is to consider the features of the development budget which deal with incentives for the investor, the creditor. the entrepreneur.

## INCENTIVE FINANCING

The initial assumption in the development budget is that the £5,700,000 required annually for development of new opportunities or employment will become available for investment only if public and private financial participation is actively forthcoming. The first problem is to frame the development programme so as to give encouragement to this participation. The basis of the plan is that the programme will direct its funds, derived from public and private sources, to strategic initial investments. These initial and strategic investments (we can call these, in brief, the nucleus investment) are not ends in themselves but primarily a beginning or incentive for the inflow of further funds for the investment programme. Not only is the order of the nucleus investment significant but also its distribution since the one can as intimately affect the degree of subsequent availability of investment funds as the other. The nucleus investment sets out to meet three conditions:

- (a) the provision of ways and means which increase the attractive ness of the choice of Jamaica for the establishing or expansion of manufacturing units;
- (b) the provision of ways and means which increase the attractiveness of the development programme for participation by local private investors in a community more accustomed to real estate investment than to transactions in stocks and shares;
- (c) the provision of ways and means which can increase the collateral or paper (i.e., tangible security) by which the development programme improves its chances for borrowing abroad from national and international sources.

### BUILDING PROGRAMME—INVESTMENT

The provision of factory buildings, with the usual services laid on and their offer on attractive terms to manufacturers, is one of the effective means of influencing the location of industries. This form of incentive is in practice so effective that the experience of different countries at differing stages of economic development substantiates the claim. Thus, in the United Kingdom in 1945-46, the Board of Trade examined a large number of new developments in order to find out what were the main factors which had influenced their location. The Board reported that "availability of premises proved to be the dominant factor in the

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majority of cases" (3). The purchasers of a country home in Lancashire, quite accidentally, stumbled on the catalyst type of action of buildings made available in advance of demand. A company for purposes of real estate speculation took over Trafford Park, the country home of a wealthy Lancashire family situated conveniently in regard to the Manchester Ship Canal. Partly through its transportation point of vantage and partly through the initiative of the management in erecting warehouses and standard type factory buildings for use by prospective tenants, Trafford Park in 1897 drew attention to the possibilities of the trading estate. The other project which, historically, had much influence in showing the significance of the provision of building facilities in advance of demand was at Slough outside London. After the 1914-1918 war the Slough Estates Ltd. converted a dump for surplus war material into a new industrial area. The company built factories of standard, simple design and then made it known that they were available to tenants. Many would-be manufacturers came to look and some remained to work.

Perhaps of even more relevance to the experience of a community like Jamaica is a project in the Netherlands, which has more in common with Jamaica than has the United Kingdom. The Netherlands has heavy population pressure plus a relatively large agricultural output but with signs of agriculture being unable to provide the employment needs. The observation of the Minister of Economic Affairs, Van Den Brink, might equally apply to Jamaica (21):

"The unremitting increase in population renders a proportionate expansion of employment imperative. Otherwise our country would be threatened by a lasting mass unemployment. Given the economic structure of our country the two ends—expansion of employment and increase of production—are only to be realized if the manufacturing industry makes a very considerable contribution".

Uden is a town in South Holland, has a population less than that of any of several towns in Jamaica, is deep in a rural agricultural area where there is a good deal of unemployment and underemployment. After a preliminary economic survey of the employment situation by a team from the Economisch Technologisch Instituut the Burgomaster (who would correspond to a Chairman of a Parochial Board in Jamaica) decided with his Council to establish a small Industrial Estate. They acquired and cleared a piece of unused land, put down a well surfaced road to the site, laid on water and electricity brought from a power house 50 miles away. Through good publicity relations mention of the project in different newspapers and magazines followed. It is an interesting commentary that there was only one small paid-for advertisement. The plan of financing was that the Burgomaster and his Council obtained a special bank loan of approximately £30,000 at 4½% p.a. and a smaller sum on a short term basis which the banks could call in at

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3 or 6 months' notice at about 2%. The clearing of the land and preparation for construction was done as much as possible out of the Council's current expenditure for roads, employment, etc. The costs were estimated to be about £20,000 for roads, water, land and about £50,000 for buildings, making a total of about £70,000. The size of the estate was about 65 acres. Each factory building was 90 ft. x 75 ft. and consisted of only 4 concrete walls, roof and concrete floor. The conditions on which a manufacturer could obtain a factory building were that he had to sign a contract to occupy the building for about 10 years but at the end of 8 years he had to declare whether or not he would purchase. If he agreed to purchase, the payment or amortization period was 30 years. The purpose of making him declare his intention in 8 years was that, in case he elected not to purchase, the Council had 2 years to look for a new occupier of the factory. The businessman was encouraged to make, at his own expense, any internal construction additions that he thought fit on the understanding that, if he vacated the factory, he would receive compensation for additions. Work on the Uden project began in 1948. In 1951 there were in existence: a textile factory, a factory for turning out small parts for bicycles, a factory for assembling motors for bicycles, a plastics factory, a plywood factory, a yarn factory, a corset factory. Seven factories had grown where none had been before and the employment roll was about 600. The Council's outlay for the estate was about £70,000. While, admittedly, there were some hidden charges, repayments enabled the Council to operate on something of a revolving fund basis. Some of the aspects are significant. It was not a Central Government organized endeavour. A Burgomaster, head of a small town in size something between that of Port Antonio (6,000) and Montego Bay (12,000) in Jamaica, had with his Council been able to obtain credit on reasonable terms. Incentive financing in providing buildings added to a good deal of boldness, resolution and thrifty husbandry of the funds had brought to his community seven factories and more were likely to follow. Enquiries for factory space which were non-existent before were, at the period when Uden was visited in 1951, ahead of the supply of buildings and were arriving from enterprises in Germany and other foreign countries. Admittedly, the Netherlands with its larger domestic markets—a population of some 10 million—and its Benelux outlets has a better prospect for establishing new manufactures than Jamaica has but the difference is not as great as may first appear.

In 1947 New Zealand put a plan into operation for attracting new industries through industrial estates. Puerto Rico, like many United States industrializing communities, has not emphasized the industrial estate of traditional pattern (i.e., a compact area with various services) and has paid attention rather to the construction of buildings on individual sites.

The story of the BAWI (balance agriculture with industry) plan

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in Mississippi is also relevant (15). Columbia is a small town in the state of Mississippi and was almost solely dependent on neighbouring forest and agricultural production which became inadequate to support the requisite standard of trade and business for the life of the community. Unemployment grew. A Chamber of Commerce was organized and began to search for manufacturing industries which might be interested in coming to the area. The following is a description given by the Department of Research and Statistics of the Federal Reserve Bank of Atlanta of the circumstances leading to the arrival of one of the first new firms, a garment manufacturing unit:

"A subsidy of \$80,000 was required to cover the cost of land and buildings, also the broker's commission. The sum was raised in Columbia by a Chamber of Commerce campaign. Part of the contribution was in cash, but much of it was in the form of 6 per cent notes made out to the Chamber of Commerce and collectible by instalments. These promissory notes presented a financing problem, for cash was needed. The problem was solved when a New Orleans bank advanced the full amount of the unpaid contributions on the security of the portfolio of notes and the personal signatures of 40 Columbia businessmen, on a master note. Thus, the building for the garment plant was financed. Construction proceeded and the company moved in".

The island of Trinidad is reported to have set aside a piece of land in an area suitable for development but did not take any further step in regard to erecting buildings. The success in attracting industries has been thus far negligible. That community has found what others have independently discovered—that to attract industry it is necessary to provide not only land but usually buildings and often equipment. Jamaica has set aside an area of nearly 200 acres lying on both sides of the railway in close proximity to the harbour. It has been laid out in blocks and scheduled for various classes of industry - dangerous, heavy, noxious, commercial. The two main sections are divided by a zone designed for recreational purposes. In the neighbourhood are blocks set aside for housing. Thus far no factory buildings have been erected by public financing but plans are under consideration for the erection of a block of "shell" factories. The decision to erect buildings is likely to be productive of results since, although the estate was set up in 1947 there has not yet been attracted to the site any enterprise which was not previously in existence in the urban area.

It is not a matter of major concern here whether the policy in Jamaica will emphasize industrial estates or will prefer industrial buildings on individual plots in different areas. Probably both courses will be followed. It will be unwise in Jamaica to place too much emphasis on erecting all of the buildings in the main urban area, Kingston. Many developing communities, like Jamaica, have found that while

there are arguments in favour of factories in or near the chief urban centre, there is much to be gained if some factories are in other population centres which can tap the excess rural population and not cause too much housing or family disorganization.

Out of a total investment of £1,570,000 in buildings and houses the development budget allocates over £800,000 or 52% to a standard type. Experience has shown that a building of standard design can be adapted to a wide range of light industries and can be duplicated or added to. Provided the other part of the development programme, including promotional activity, is under way, construction of units can and should be undertaken even before the nature of the occupying enterprise is known. A modification of the standard unit is the shared or incubator building. Such a building provides for small, starting industries which need little space initially and which, located in the same building, have access to common service facilities, like delivery and a common platform. These facilities sometimes make possible and encourage modest beginnings. If the shared buildings are erected in an area where there is a labour supply there will be no problem later for the enterprise to move to large and more adequate premises. Remodelling and renovating of existing buildings can often be a quick and thrifty method of providing factory space; allowance is made for some expenditure (8%) in this direction (Table 13). Certain industries will need buildings of required specifications and the allocation to cover buildings of this special type is 16% of the buildings' costs (Table 13). Construction of these specialized buildings will take place normally in response to a demand either by a manufacturer or by those directing the programme.

The programme envisages that managers and senior technicians will come to Jamaica for some of the managerial and technical posts. Other developing communities have found that difficulty in obtaining suitable living accommodation has sometimes discouraged entrepreneurs and their chief technicians from abroad. The provision of housing facilities is an important consideration in bringing to a successful conclusion negotiations for the introduction of an enterprise from abroad into an area. The budget allows £210,000 (about 13% of the expenditure under this head) for residential purposes (Table 13).

### BUILDING PROGRAMME-AIDS

After factory and other buildings are erected the question of transfer and tenure arises. A rental figure yielding returns to the builder of, say, 8-9% on the capital investment would seem justified and it is important that rentals to new enterprises housed in Government financed buildings should not be so low as to discourage private investment in construction. In place of Government rentals so low as to be uneconomic it is preferable that, in the early period of the industry's life, an economic rent be met, including where necessary contribution

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the he (Table is that Funds the gr agency ward, securit from a subsidy fund; this subsidy should apply to government or privately built factories. The budget makes an allowance of £120,000 (Table 13) a year for subsidising first year rentals. The guarantee of a minimum rental (say 4% on capital investment) is often necessary to give private enterprise sufficient inducement to erect factory structures before firm tenants are available. This guarantee is apart from the subsidy of rent in the first period if the factory is occupied. A further and reasonable inducement is that investment in factory building should yield tax exempt returns. Such tax exemption may apply even when the occupying enterprise is not itself exempt. Individual arrangement is likely to evolve different conditions of tenure. Some, who finance building, may prefer to lease rather than to sell in the belief that a sale at an early stage may forego a chance for capital appreciation or may lead even to a loss in real capital. In order to keep prices down it is sometimes advisable to prevent undue rise in value of land near to industrial sites. One course is for the state or the community to take an option on some areas considered attractive for Another course is to encourage dispersion of manufactures throughout the island. There are many undertakings, especially in the light industry field, which have a good deal to gain from location near to a rural labour supply and not in the main urban centres. Some of the advantages relate to social conditions such as not breaking up the family unit; to labour conditions, such as relative remoteness from labour unrest; to economic conditions, such as amenities of living for employees including possibilities for family production of some of the food requirements. A paper read before the Fifth Inter-American Congress of Municipal History makes the point that local authorities and organizations could and should give attention to the attraction of industry into the areas of their responsibility (12).

The making available of buildings and equipment fulfils, to an unusual degree, the three conditions which nucleus investment should meet. The discussion above emphasizes how effective the measure can be in attracting the entrepreneur. The entrepreneur will normally invest some capital and so make a contribution to complementary investment. Equally important, from the point of view of investment, is the high rating which real estate development enjoys for attracting investment

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stry's ution The development budget makes an allocation for investment under the head "buildings and houses" of £1,570,000 as total final investment (Table 14). The proposed method of financing the building programme is that Government sources provide a nucleus investment of £1,025,000. Funds from Government sources are therefore initially responsible for the great preponderance of the building programme. A Government agency then proceeds, as construction and related improvements go forward, to refinance its investment by the sale of government-backed securities, based on the real estate development, to the extent of about

70% of the original investment. The residual investment of government funds is about £308,000 (Table 14). The budget plans that this initial financing from Government sources will lead to accompanying real estate investment by other investors and creditors to the extent of £1,262,000. This means that Government thus releases about £717,000 of the original £1,025,000 of its investment. The plan assumes the promotional activity, the incentive conditions to tax exemption, economic rent, a basic rent guarantee in certain circumstances, which have been discussed

Another major item of investment in the development budget is equipment. The total residual allocation in equipment is £2,100,000 about 36% of the total budget (Table 13). In this item, as in buildings, the plan requires that funds from Government sources provide initial and strategic financing. Original funds from Government sources amount to £1,426,000 which refinancing through sale of securities, as in the case of the real estate programme, reduces to a residual government commitment of £888,000. The budget assumes that, if the pattern of development in Jamaica is to follow that in some comparable communities and if the real estate programme accompanies initial and strategic investment of government funds in equipment, substantial investment in equipment will follow, particularly by entrepreneurs. The budget plans to meet its equipment investment of £2,100,000 by a residual Government investment of £888,000, an entrepreneur's investment of £674,000 and £538,000 from other investors and creditors.

OTHER FORMS OF AID AND SUBSIDY

Shipping facilities to and from Jamaica are inadequate, relatively expensive and likely to have a limiting effect on Jamaica's manufacturing possibility. The assumption, in this paper, is that Jamaica's industrial programme may expect to be successful only if based, to some considerable extent, on exports and therefore wider markets. In addition much equipment has to be brought in. Some form of subsidizing shipping is, therefore, indicated. One method which has sometimes found favour is the aid in freight charges on machinery and equipment which have to be imported for manufacture. There is a subsidy allocation of £90,000 for this charge (Table 13).

The other major head for subsidy is training for industry. The budget makes allowance for £140,000 for training of workers, of whick £90,000 is a part of the operating capital of the enterprises started and £50,000 is a straight subsidy, from Government sources. To be successful a technical training programme should provide for rounded courses; these are, often, necessarily slow. Where there is need for increasing the supply of skilled workers quickly, auxiliary, short specific training courses have proved effective and practicable. If, for example, a manufacturer were to set up a lens grinding factory in Jamaica, it is highly improbable that training personnel would be easily available

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in th and that and high num level made ately speak There bean and h There lack the 1 legisl and Jama ment ment the r Unive than ber o Thus in th versit atten 6,000. tion i Canad stude speak locally. A few technicians of the new company, arriving in advance and bringing with them some of their equipment could join in a collaborative effort in which Government provided for training space and some of the cost. The company would be enabled to start operations with a core of workers, each skilled in a specific if even restricted technique. This is the kind of cost which a developing community must meet if it is to compete with more developed areas which already have pools of skilled workers and the established institutions which are conditioned to industrial expansion.

Local personnel should receive increasing opportunity for training in the industrialized centres of the world for the more senior technical and managerial posts. Japan found in her development programme that the sending abroad of selected persons in liberal quantity to learn and apply the acquired skills in technique and in management paid high dividends. Jamaican youth, from the groups which have adequate educational background, are likely to be forthcoming in sufficient numbers if assured that posts in industry will be open to them at all levels. Hughes in his book French Canada in Transition (16) made the point that French Canadians tended to go disproportionately into the liberal professions in a community where the Englishspeaking group dominated business and manufacturing opportunities. There is a similar pattern, perhaps even more marked, in the Caribbean where the middle classes have also avoided training for technical and business posts and concentrated on medicine, law, the civil service. There is little doubt that one of the influences at work is the fear of lack of opportunity in directions other than those chosen. Some of the Latin American countries have thought it expedient to enact legislation requiring the employment of natives in posts at all levels and while similar statutory action seems not in keeping with the Jamaica tradition emphasis, in the interest of the whole development programme must be placed on job mobility. It is worth mentioning that although there is a high demand for graduates in the natural and physical sciences applications for admission to the University College of the West Indies in those fields have been lower than anticipated. This is all the more unfortunate since the number of persons receiving higher education in the Caribbean is low. Thus the population is 2,000,000 in New Zealand compared with 3,000,000 in the British Caribbean and according to the Commonwealth Universities Year Book 1951, the full time number of students in attendance at the University of New Zealand was approximately 6,000. The corresponding British Caribbean students receiving education in the Caribbean, the United Kingdom, the United States and Canada is about 2,000. There is therefore in New Zealand, 1 University student to about 300 persons compared with 1 to 1,500 in the Englishspeaking Caribbean.

Other aspects of training as they affect the labour force may be

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less obvious. To most workers with an agricultural tradition in a community like Jamaica, absenteeism is not a matter for serious concern. When such an unskilled hand undergoes technical training he is likely to be associated with equipment of higher capital value. In the new circumstances absences from work and irregularity of hours by the trained worker can be a disrupting force and a factor materially affecting costs. It may also be that a community entering into manufacturing competition and concentrating on industries with relatively high labour input, have to look somewhat more carefully at the number of holidays involving idle machines and over-time for workers.

In Jamaica the chief organ of local government is the Parochial Board. Those associated with these Boards are therefore closely associated with thinking and planning at the "grassroots level". A number of persons, selected by some of the Boards, recently attended a series of lectures. The opportunity was taken to circulate a simple questionnaire and 25 replies were returned. The answers throw light on the reaction of the group to some of the problems of industrial development in Jamaica. Out of 25 only 3 thought that industrialization should be encouraged very vigorously; most, 17, considered a more moderate course desirable; even a larger number than those who thought that a very vigorous policy should be pursued advocated the least vigorous of the three courses of which they were given a choice.

In reply to the question why industrialization should be pushed there was well informed and general agreement that the chief purpose was to reduce unemployment. Of the policy or projects most likely to encourage new industries, the majority thought that first attention should be given to agricultural activity, which is probably associated with a fairly widespread belief that manufacturers must confine themselves to the raw products available locally. It is encouraging that so many placed emphasis on the need for attention to power and hydroelectric facilities. Tax concessions and subsidies were mentioned 8 times out of a possible 21. In regard to policy for encouraging industries in individual parishes, the industrial estate was mentioned twice, tax concessions and subsidies once (Table 18). This is somewhat disconcerting since, if industrial development is to be encouraged at the local government level, local tax concessions and building facilities are items of policy which must rank high in the thinking of parish authorities wanting to secure the establishment of manufacturing units in their neighbourhood. Asked if Government should endeavour to borrow money from abroad, most agreed that this was a wise policy but one disapproved and two would give their consent only if Government explored local possibilities and did not find adequate funds available. They were finally asked if they had attended any meetings at which the feasibility of new industries was discussed. Six had attended meetings where such discussion had taken place but a much larger number. 19, had never heard a group discussion of the problem. It is clear that

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Freedom from taxation for a given period is one of the most common forms of subsidy for a new industry. Jamaica has had a Pioneer Industries (Encouragement) Law since 1949. The period of tax exemption for an industry which is declared a pioneer industry is any five out of eight years and the maximum tax deductible is the capital invested. The period is, by comparison with what is being done in other communities, not generous and a 10-year tax exemption period is more likely to hold its own in competition. There is also a case for making deductions for all losses since, in the first years of establishment, it may not be so much a question of accumulating profits as writing off deficits. Many developing countries think it good business to err on the side of generosity as far as tax exemption is concerned, since the exemptions may come from revenue which, in other circumstances, the Government would, in any case, not be enjoying. A refinement, discussed in other developing territories, is a special income tax deduction allowance which increases in ratio to total wages. As the policy of places like Jamaica is to attract labour-oriented industries, a provision of the type indicated is an added inducement for such enterprises. A private study in Puerto Rico carried out among new industries coming to the island indicated that tax exemption facilities were among the considerations which weighed most heavily. This would appear almost irrational. There, as in Jamaica, the investor from the metropolitan area in normal circumstances gains little advantage from local tax exemption although the metropolitan investor who earns as much as 80% of his income in Puerto Rico, even if resident in the United States, enjoys tax exemption.

There are various forms of aid and subsidy which, in one way or another, are regarded as normal in developing economies: the purchase of the Government's requirements at a special price from a new and establishing industry; the provision of power at as low a rate as possible; a refund or remission of taxes on material imported for use in manufacture; tariff protection. The major directions of subsidy for which provision is made in the plan (Table 13) are rental in connection with factory buildings, aid to shipping, training for industry, and aid to key industries.

## FUNDS AND THEIR SOURCES

The development budget calls for an investment of £5.7 million annually for five years. The financing procedure is in two stages, the second being dependent on the one preceding. In the first stage, initial and strategic investment of funds made available from Government sources go into undertakings which the budget indicates. The figures while necessarily approximate are specific enough to show with some precision the course which the budget commends. The nucleus investment involves a commitment of approximately £2 million a year de-

rived through government sources. Of this about 70% is for buildings and equipment, about 28% for aids and subsidies and about 12% for administration and promotional activities. On the basis of the investment of this £2 million, the development budget draws up in some detail, for the second stage, the distribution of complementary participation which reasonably comparable development has grown to expect (Tables 14, 15, 16, 17).

The discussion under preceding heads has given emphasis to Government's initiating action with the provision of buildings and accompanying equipment, on the grounds that developing communities wishing to attract new industries have found the provision of such facilities a strong bargaining power. Government can justify its initiative in these directions - initiative which private enterprise in corresponding communities supports - since the community derives its maintenance, not only from profits but, from employment, services, rentals. When we get to the stage, as we now have, of endeavouring to find the funds for the financing of the plan it is important that initial investment in such facilities provides a pattern for investment that is attractive for Jamaica savings. A group of experts (29) makes the point that, in the encouragement of institutions useful for converting savings into more desirable forms, it is good practice "to utilise existing savers' preferences rather than to go against them."

The local investor is little accustomed to risk capital, possibly because so many of the leading firms are private companies and possibly because the financing institutions, generally, have paid too little attention to encouragement in this direction. The Jamaica investor is partial to mortgage financing. So partial is he that banks and related institutions have been doing much in recent months to encourage diversion of investment funds from mortgages into other channels. A very rough estimate of capital investment in 1950 in Jamaica is about £13 million and mortgage investment is about £1.8 million on the assumption that mortgagors renew one third of all discharged mortgages. The development programme assumes that the Government must set the stage on which others will be encouraged to play their parts — the mortgage instrument being given the prominence which traditional intimacy and acquaintance suggest.

As stated above, the industrial building programme involves an initial Government investment of about £1,025,000. A development bank can be a useful accessory in an operation of this type; first, the buildings are erected and afterwards mortgaged up to, perhaps, 70% of their value with the development bank; the bank can then proceed to use its securities as collateral for selling bonds, abroad and locally, to public and private agencies.

Jamaica's first choice for the sale of these bonds is, of course, the London market but there is faint hope. With the high interest rates prevailing in Britain one must visualize an interest rate of not less

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than 7%, but this is too high. One of the chief attractions which these bonds could offer would be tax exemption. It is unfortunate that this would mean in practice that what the U.K. bond holder received from the Jamaica Government he would subsequently have to hand over to the U.K. income tax collector. Private purchase of these bonds is, therefore, likely to be limited but they may receive patronage from U.K. companies registered in Jamaica. These bonds may have little better fortune with U.K. public bodies.

Jamaica has, however, some arguments to put forward. In regard to Britain's balance of payments the visible gap between imports and exports was £550 million in the first half of 1951 compared with £470 million in the first half of 1952. This reduction came about primarily because the terms of trade grew more favourable to Britain in 1952. There is a body of economic thought which argues that the terms of trade moving against her have been one of Britain's main handicaps. Because this necessarily raised the prices of her imports, it became increasingly difficult for her to hold her export markets. Even when the effect of devaluation was eliminated Britain's import prices rose over 50% between 1946 and 1950. This shortage of commodities produced by the underdeveloped territories of the world suggests that the more highly industrialized countries will find it in their own interest to invest in the newer areas. Jamaica provides an interesting anomaly: the terms of trade have moved against the island's chief export products, sugar and bananas, during the post-war period of the 1940's and 1950's. Nevertheless, the anomaly illustrates one aspect of the problem being argued since recent international investment - involving surveys, exploration and capital equipment - has brought into existence the production of additional exports through the Jamaica bauxite industry.

Investments in the underdeveloped countries of the world were relatively high until the first World War, practically disappeared after the slump of the inter-wars period. Conditions have transformed Britain from an exporter of capital to a net importer on a quite substantial scale. As far as the Commonwealth is concerned it is the colonies alone which have increased their sterling balances since the war. It is the colonies that are investing in Britain rather than the other way round. In this situation Jamaica was able to borrow in 1949 £3,300,000 on the London market and has not since floated any loans there. It would seem, therefore, that loan funds will be forthcoming only through Government channels and even then the supply will be sharply restricted. One may go even further and say that a seeker after funds on the London market will get a hearing only on the argument that countries like Britain cannot expect more favourable adjustment in the prices of imports if the productivity of places like Jamaica does not rise. Increased productivity is likely to come about only with renewed capital investment.

Other markets for the sale of the bonds are the U.S. and Canada

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rates t less but success is unlikely without vigorous salesmanship. The chief appeal might well be that, with sterling devaluation acting strongly in favour of dollar funds, the long run outlook for capital appreciation for the U.S. and the Canadian investor would seem good. Canada has agreed to provide some credit for the Colombo Plan. Jamaica's name is becoming increasingly well known and, although there will be formidable sales resistance, the opportunity seems worth pursuing for some Canadian participation. It may well be that, despite the effort, the investor in the last resort will be primarily institutions like the Import-Export Bank and the International Bank for Reconstruction and Development. The credit to be financed through sale of development securities is £1,255,000 per annum, that is, £6,275,000 for the five-year period (Table 14). There is emphasis on securing sale of these bonds, in the main, abroad since the budget contemplates complementary and generous local financing in directions to be indicated below.

The budget also makes provision for nucleus investment in equipment. One method of procedure is to advance up to, say, 40% of the market value at rates of interest ruling in commercial banks; loans in excess of such a ratio, if granted, are based at higher than ruling rates of interest. The purpose is to try to encourage commercial banks to handle this financing. Aid should also be forthcoming in regard to working capital having special regard to inventories. In order to encourage the commercial banks to take charge of this financing, Government may guarantee repayment to the commercial banks of say, 75% of the loan. The added incentive to commercial banks to undertake the administration of some of the risk relating to loans in this category may well justify the risk taken by Government. The several items here are interacting and the success at one stage assumes the implementation of the recommendations in another. The contribution of entrepreneurs is based on the assumption that the development of the programme on the lines discussed is a necessary forerunner; that promotional activities have been undertaken with determination; that the incentives in regard to buildings, equipment, credit, sea transport have been afforded.

With such a background the development programme envisages an entrepreneurial annual investment of £1,688,000 on a basis of £1,518,000 to be derived from entrepreneurs from sources abroad and £170,000 from local sources (Table 15). It is clear that this is one of the major items in the financing of the industrial programme. The allowance made for administration and promotional activities (£250,000 a year) may appear to have somewhat more justification in such a context.

If funds of the order of that in the budget are to come forward, the problem will not be that of restricting the amount of capital to be invested by entrepreneurs coming to Jamaica but rather that of adequate encouragement to ensure that the hoped for capital investment takes place. The degree to which a capital-poor country has to rely on this

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A substantial proportion of the funds to be derived from local sources is anticipated to come through mortgage type of financing based on the security of buildings and houses, some £457,000 (Table 15). Private investors using mortgage financing follow the lead given by Government and help to finance that part of the industrial development programme relating to buildings and houses. The resulting buildings become an attraction for entrepreneurs and this integration makes it possible to induce the collaboration of local savings in the endeavour.

Having discussed the broad plan for development one still has to face the problem of making proposals specifically as to the source and availability of investment funds. The first consideration is the Jamaica Government's annual commitment. Around this much revolves since it is primarily responsible for the initial and strategic investment which forms such a major part of the financing proposals. The Government's commitment (Table 14) is:

- (a) £1,255,000 at the beginning of the first year which is a revolving fund and which will be collectible in full for repayment at the end of the fifth year. The proposal in the development budget is that this sum, £1,255,000, is recovered at the end of each year, re-invested in the development programme in the succeeding years and at the end of the fifth year repaid by the Government into the source from which it came.
- (b) £700,000 for each of five years for aids, subsidies and expenses, amounting to £3,500,000 for the five-year period. This is a charge in full for which Government must be responsible.
- (c) £1,312,000 for each of five years for residual government commitment exclusive of the item shown in (b) above amounting to £6,560,000 in 5 years. This sum represents investment by the Government which may not be easily recoverable. The Government may therefore be required to finance this allocation (£1,312,000) and may have to face the eventuality that this part of its investment may not be easily liquidated. Although it may therefore be unduly conservative financing the assumption in the plan is that the Government will also have to provide on a long term basis for this sum of £1,312,000 a year or £6,560,000 for the five-year period. The industries should meet the interest charges.

A logical means of financing the Government's annual required commitment is through a long term loan, probably mainly from international sources. The loan can be arranged on the basis of each year's investment funds becoming available as required and then Government's repayment in 20 annual instalments. The commitment for which the Government revenue must make repayment is the total of the sums indicated at (b) and (c). For the investment at (b)—£700,000 a year

TABLE 19. CHARGES AGAINST THE GOVERNMENT'S REVENUE FOR INVESTMENT IN DEVELOPMENT PROGRAMME

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Year		sidies, Exp	enses	Residual Go commitment ing aids, sub expenses)	(exclud-	Total annual instalments paid out of Government revenue
	(1)	(2) a	nd (3)	(4)	(5)	(6)
	Loan of £700,000 (in each of 5 years) repaid in 20 instal- ments	terest (dinstalme Governmenter)	ent's re- or repay- loan in	Loan of £1,312,000 (in each of 5 years) repaid in 20 instal- ments	Annual Instalment from Government's revenue for repayment of loan in Column 4	
	£	£	£	£	£	£
1	700,000	35,000	31,500	1,312,000	65,600	132,100
2	1,365,000	71,842	61,425	2,558,400	134,652	267,919
3	1,993,158	110,739	89,692	3,735,748	207,542	407,973
4	2,582,419	151,907	116,209	4,840,206	284,718	552,834
5	3,130,512	195,657	140,873	5,867,488	366,718	703,248
6	2,934,855	195,657	132,068	5,500,770	366,718	694,443
7	2,739,198	195,657	123,264	5,134,052	366,718	685,639
8	2,543,541	195,657	114,459	4,767,334	366,718	676,834
9	2,347,884	195,657	105,655	4,400,616	366,718	668,030
10	2,152,227	195,657	96,850	4,033,898	366,718	659,225
11	1,956,570	195,657	88,046	3,667,180	366,718	650,421
12	1,760,913	195,657	79,241	3,300,462	366,718	641,616
13	1,565,256	195,657	70,437	2,933,744	366,718	632,812
14	1,369,599	195,657	61,632	2,567,026	366,718	624,007
15	1,173,942	195,657	52,827	2,200,308	366,718	615,202
16	978,285	195,657	44,023	1,833,590	366,718	606,398
17	782,628	195,657	35,218	1,466,872	366,718	597,593
18	586,971	195,657	26,414	1,100,154	366,718	588,789
19	391,314	195,657	17,609	733,436	366,718	579,984
20	195,657	195,657	8,805	366,718	366,718	571,180
		3,500,000	1,496,247		6,560,000	11,556,247

or £3,500,000 in 5 years—the Government revenue must make provision for repayment in 20 annual instalments of approximately £250,000 in capital investment (Table 19). For the investment at (c) the Government revenue must make provision for repayment in 20 annual instalments of £328,000 (Table 19). These two amounts totalling £578,000, or £600,000 in round figures, represent the sum which the Government revenue must plan to provide. As shown (Table 19) repayment will not be in equal instalments but will be rather smaller in the first years, which has advantages from the point of view of financing. Thus in the first three years the revenue commitment will not be £600,000 a year but £132,000, £268,000 and £408,000 respectively.

The Jamaica Government's allocation for industrial development in 1952, the first year of life of the Industrial Development Corporation, and while its operations were still necessarily on a modest scale, IN-

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nent tion, cale, amounted in the first instance to £350,000. The Administration's policy as to the order of industrial development funds to be allocated through fiscal methods are of course net known. It is assumed for the purpose of this budget that the annual Government allocation derived from revenue will be £600,000, i.e., somewhat over one and a half times the first year's direct Government investment in industry. If suggestions are sought for directions in the internal economy from which contributions to this £600,000 may be made, the following are among those to be considered:

Income Tax. A source which first suggests itself for consideration is income tax. Although it is not always realised, it usually proves to be the case that part of the development costs must be met by the present for the future good. In the absence of more comprehensive statistics it is not easy to estimate the order of funds that might be realisable for allocation from income tax for development. The Jamaica Government has two major sources of revenue: indirect taxation making up 76% of total Government revenue and income tax 24% (Table 20). Trinidad derives 35% of its revenue from income tax with a substantial direct contribution from petroleum (10%); Barbados has no ancillary sources of revenue like royalties, and obtains the impressively

TABLE 20. GOVERNMENT REVENUE AND ITS SOURCES

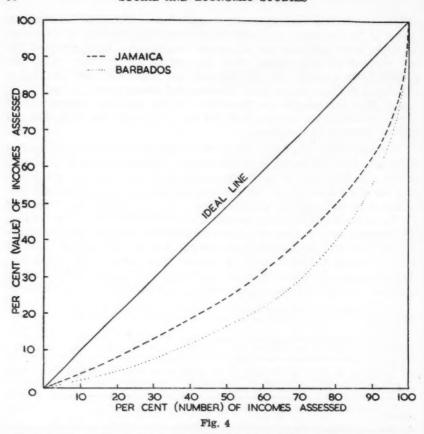
Source	e	Barbados 1952-53	Jamaica 1952-53	British Guiana 1951	Trinidad 1950	Puerto Rico 1951	New Zealand 1947-48
		% of total revenue	% of total revenue	% of total revenue	% of total revenue	% of total revenue	% of total revenue
Income Other	Ta	x 48.6 51.4	23.5 76.5	33.8 66.2	34.9 65.1	27.7 72.3	30.0 70.0

high ratio of 49% of its revenue from income tax. From income tax British Guiana obtains 34% of its Government revenue, Puerto Rico 27% (when contribution to island revenue from metropolitan sources is reduced to approximately the same level as in the case of Jamaica); New Zealand 30% (Table 20). On the other hand indirect taxation rates in Jamaica are relatively high and in such circumstances the income tax ratio taken in isolation means little.

The income tax collection per dollar spent is in the proportions shown (Table 21).

TABLE 21. INCOME TAX COLLECTIONS

Territory	Income Tax revenue per dollar expenditure on Income Tax Dept (West Indian \$)
Jamaica	52
Barbados	129
British Guiana	115
Trinidad	252



These figures again may mean little if the income pattern in Jamaica is different from that in the territories compared. National income figures suggest that even by Caribbean standards the income per head in Jamaica is relatively low. The statistics available do not make it possible to compare satisfactorily income patterns in the British West India territories but the picture (in both Figs. 4 and 5) indicates that incomes tend to be somewhat better distributed in Jamaica. Fig. 4 shows the distribution of gross incomes for individuals in 1942 and Fig. 5 shows the distribution of net taxable incomes for individuals and companies in 1948. An income structure with incomes less well distributed can reduce the costs of income tax collection. The PAYE system of collection is about to come into force and will doubtless have some influence on increased collection of income tax. It is not unrealistic to envisage an allocation from increased income tax of £100,000 a year.

Bauxite Royalties. Bauxite mining came to Jamaica unexpectedly and so the income from this source is somewhat in the nature of a

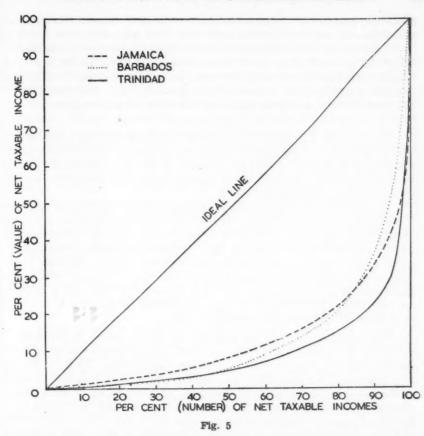
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windfall. In the circumstances it would seem good husbandry to devote the total royalties and income tax collected from bauxite to productive endeavour. A good choice is industrial development. The sums to be derived from royalties and taxes should not be less than £400,000 a year.

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Relief Works. Government in Jamaica spends between £100,000 and £200,000 a year in relief works. A conscious policy to use a part of the activity resulting from these funds in the development programme would make a contribution. This approach was found helpful in the Uden development scheme mentioned earlier.

Miscellaneous. Public opinion is unlikely to support a policy of increasing revenue from sources such as sweepstakes. In 1951-52 the Jamaica Government revenue from sweepstakes was £21,000. The United Kingdom has found it wise to legalise the opportunities for betting which, in 1950, was mainly responsible for contributing some

£26,000,000 to her Government revenue. In 1951 Puerto Rico derived about 3% of her Government revenue in this way and, on a Jamaica basis, this would mean £300,000 a year. A well controlled scheme contributing no more than £100,000 would fill the gap. In its favour it would probably be a relatively painless form of taxation and on ethical grounds it might have at least as strong support if it removed some of the underground and widespread ramifications of peaka peow.

### CONCLUSIONS

In Part I of this paper a number of examples has been selected to throw light, in a background sense, on certain of the circumstances relating to Jamaica's economy. Because of the importance of agriculture in Jamaica's economy, the instances have been selected in special regard to the agricultural sector.

In Part II the premise is that increased total production in Jamaica is desirable. This must mean, in the first place, increased agricultural production. There are still areas to be brought into agricultural occupation and this paper assumes that agricultural development will be given a first claim on the Colony's development effort. Increased production in agriculture is aided through the use of modern techniques and these in turn are associated with higher yields but fewer workers on the land. The trend is already discernible in Jamaica in the one crop for which figures are available, sugar.

The existing population pressure on small farms is probably a deterrent to higher production. A trend towards more economic sized farms (there is an increase in medium sized farms, 10-49 acres, by 15% between 1942 and 1950) is likely to result in a transfer of some of the underemployed out of agriculture. Opportunities for emigration, always restricted, have been made more so by the McCarran Bill. Promise for productive employment seems to lie inter alia in absorption of labour into manufactures and the submission in this paper is that in such a context the bold expansion of manufactures is a requisite part of a successful agricultural development programme. An industrial expansion programme, however desirable, requires high investment and may well appear as not within the means of a relatively poor territory like Jamaica. For that reason this paper draws up a development budget presenting in detail the order of finances estimated to be involved. In many instances the apparent precision of the figures is more than approximations in a model of this type can justify and is due mainly to the need for arithmetic consistency. The budget attempts to integrate a financial five-year programme for increasing manufacturing opportunities based on the requirements of finding employment for Jamaica's population increment in the gainfully occupiable group in the five-year period, 1951-56.

There is no discussion in this paper on the types of manufactures which may prove practicable in Jamaica. Lewis' analysis (20) is too

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well known to deserve more than reference here. The Economic Development Administration in Puerto Rico and others have available lists of industries which are promising for underdeveloped territories.

The development programme calls for an investment of £5,700,000 annually in expanding manufactures. Of this sum £2,012,000 or a little over one-third should come through Government sources as a residual commitment, including £700,000 in aids, subsidies and promotional expenses. The difference (between £2,012,000 and £700,000) £1,312,000 is invested primarily in buildings and equipment and which, while not immediately convertible into liquid funds, is in items which add to the improved value of the island. To facilitate orderly financing, and in the light of the possibility of Government's finding it unduly difficult to increase its normal charges against revenue by so large an annual allocation, the recommendation is that Government's commitment be met by a long term loan on the basis of annual repayment charges of £600,000 derived from the island's Government revenue. The programme places emphasis on the direction and nature of the investment, especially on what is termed "initial and strategic investment".

The plan is one of incentive financing and assumes that the Government will be responsible for a limited proportion of the investment funds. The basic assumptions of the incentive financing plan are:

 that the programme distributes nucleus investment funds in direction and in quantity in order not only to aid the expansion of manufactures directly but also to encourage complementary financial participation;

(2) that this participation will follow a pattern that is becoming visible in communities which are undertaking development in a comparable stage of social, political and economic evolution;

(3) that manufacturing enterprises establishing plants in Jamaica will chiefly be of the light, labour-oriented types which comparable areas are attracting.

The paper estimates the form that complementary investment will take and attempts a detailed analysis. The community in Jamaica is on the whole not accustomed to risk capital. There is not a tradition for putting savings into stocks and shares. In order to enlist the maximum participation of local savings, the programme is framed in a manner to provide the Jamaica investor with investment opportunity of the type to which he is accustomed and for which he has shown favour. The mortgage type of investment, based on real estate development in the first phase of the programme, encourages the propensity to save by making financial participation, especially in real estate development and other investment opportunity, an important part of the scheme. The proposals, while emphasizing mortgage financing, assume that there will be active encouragement for other means of directing savings into the development programme. Thus, it may be advisable to set up an investment trust in connection with the develop-

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ment agency, the agency taking securities of the new industries while selling stock in the holding company in small denominations. The experience that factory buildings have provided a potent attraction in the location of manufacturing enterprises is an important but another aspect of the argument in favour of the investment policy recommended.

It is not easy to estimate the returns to the community from the investment. The plan conceives of absorption of about 1.3% of the labour force into opportunities created by the development plan presented. It is proposed in another paper to deal with aspects of agricultural development and, as in industrial development, one approach can be to reduce the problem to one of capital investment. Capitalization in agriculture is likely to involve, among other things, a lessening of the population pressure on the land and a reservation to the present paper is that the absorption into avenues other than agriculture is not of a sufficiently large order to induce a transfer of any of the farming population out of agriculture. It is therefore justified to restrict here any calculations for increased output only to the new jobs created by the investment discussed.

One may attempt to isolate the contributions to the national income from the production resulting from the proposals outlined in the programme. The number to be absorbed into manufactures (excluding ancillary employment) approximates nearly 0.8% of the Jamaica labour force. This transfer can be expected to increase industrial production by about 8% a year, i.e. by about 40% in the five years of the programme. In the most recent estimates for which figures are available, Jamaica's secondary production (less cost of raw materials) was about 8% of the national income. If that proportion continues to be the same and if the current national income is £90,000,000 then the corresponding added value of industry would be about £7,000,000. The net output associated with the investment called for in the present budget should approximate £600,000 in the second year, £1,200,000 in the third year, £1.800,000 in the fourth year, £2,400,000 in the fifth year and £3,000,000 in the sixth and succeeding years. This is a sum representing total added value and out of it must be met such costs of production as depreciation of equipment, advertising and other expenses, salaries, wages, dividends. There may be some reservation to accepting the value added (£600,000 a year rising to £3,000,000 a year) as a net increase of Jamaica's income attributable to the industrialization investment discussed. Thus one can argue that if the employment opportunities to be created in the scheme did not materialize, there would be a corresponding number of workers put on the labour market. ceivably these persons would contribute to agricultural output, in the The paper submits that, although estimates are not available, there is so much unemployment and underemployment that it is probable that yields in agriculture in Jamaica are unlikely to be raised further by increasing the population pressure on the agricultural land. This will

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TABLE 21. CONTEMPLATED ACHIEVEMENT OF DEVELOPMENT PROGRAMME

Year	Number pe in new created by enterprises	rsons employed opportunities manufacturing	Added value of indus- try created by the new manufacturing enterprises	Income from ancillary employment
	Direct	Ancillary	£	£
2	4,600	3,900	600,000	540,000
3	9,200	7,800	1,200,000	1.080,000
4	13,800	11,700	1,800,000	1,620,000
5	18,400	15,600	2,400,000	2,160,000
6 and	23,000	19,500	3,000,000	2,700,000

A summary of the results which are contemplated is given (Table 21). There is in addition an accumulation of about £6,560,000 as a residual government investment primarily in buildings and equipment, which the Government may to a lesser or greater extent be able to reconvert into liquid furals over time.

#### REFERENCES

- Annual Report of the Labour Department, Jamaica, 1944. Government Printer, Kingston.
- (2) BLACK, J. D. et al (1948) Farm management. New York, MacMillan Co.
- (3) Board of Trade Journal (Jan. 19, 26; Feb. 2, 9, 16, 23, 1946). Industrial opportunities in the development areas. H.M.S.O., London.
- (4) BURROWES, W. D. (1952) Sample survey of production of selected agricultural products, 1950. Department of Agriculture, Jamaica.
- (5) Central Bureau of Statistics, Jamaica, Census of Jamaica and its Dependencies 1943. Government Printer, Kingston.
- (6) CLARK, COLIN (1951) The conditions of economic progress. MacMillan & Co., Ltd. London
- (7) Colonial Standard, Jamaica, January 10, 1874.
- (8) ENGLEDOW, F. L. West India Royal Commission 1938. Report on agriculture, fisheries, forestry and veterinary matters. H.M.S.O., London
- (9) FRANKEL, S. H. (1952) Some conceptual aspects of international economic development of underdeveloped territories. Oxford University, Institute of Colonial Studies.
- (10) GALBRAITH, J. K. 1952 American Capitalism. Houghton Miffin Co.
- (11) HUGGINS, H. D. (1943) An economic survey of dairy farming in East Demerara. Department of Agriculture, British Guiana.
- (12) HUGGINS, H. D. Municipal policy and development. (Paper presented to the Fifth Inter-American Conference of Municipal History held in the Dominican Republic, April, 1952).
- (13) HOOVER, E. M. (1937) Location theory and the shoe and leather industries. Harvard University Press.
- (14) HOOVER, E. M. (1948) Location of economic activity. McGraw Hill Book Co., N.Y.
- (15) HOPKINS, E. J. (1944) Mississippi's BAWI plan: Federal Reserve Bank of Atlanta.
- (16) HUGHES, E. C. (1946) French Canada in Transition, K. Paul, Trench, Trubner & Co. London.
- (17) International Bank for Reconstruction and Development (1952). The economic development of Ceylon. Oxford University Press.
- (18) LAMPE, P. H. J. Caribbean Economic Review Vol. III Nos. 1 & 2 1951. A study of human fertility in the British Caribbean Territories — Caribbean Commission, Tripided
- (19) LEWIS, W. A. (1951) Attitude to Africa; A policy for Colonial agriculture. William Clowes and Sons Ltd., London & Beccles.
- (20) LEWIS, W. A. (1950) The Industrialization of the British West Indies. Caribbean Economic Review Vol. II No. 1. Caribbean Commission, Trinidad.
- (21) Memorandum on the industrialization of the Netherlands: Explanatory memorandum to chapter X of the 1950 budget.
- (22) MORAIS, A. I. The National Income of Jamaica for 1943, 1946. Central Bureau of Statistics, Jamaica.
- (23) MORALES, J. O. et al. A credit study on 167 tobacco farms. Puerto Rico, 1939-40. University of Puerto Rico.
- (24) OLIVIER. (1936) Jamaica the blessed island. Faber & Faber, London.
- (25) PERLOFF, H. S. (1950) Puerto Rico's economic future. University of Chicago Press, Chicago, Illinois.
- (26) Report of the West India Royal Commission (1897)
- (27) ROBERTS, G. W. (1951) Caribbean Economic Review Vol. III Nos. 1 & 2 Population trends in the British Caribbean Colonies 1946-61. Caribbean Commission, Trinidad.
- (28) STOCKDALE, F. (1945) Development and Welfare in the West Indies H.M.S.O. London.
- (29) United Nations, Dept. of Economic Affairs N.Y. (1951) Measures for the economic development of under-developed countries.
- (30) World Today, (March 1947) Institute of International Affairs,

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LABOUR PRODUCTIVITY AND CAPITAL-LABOUR RATIOS IN JAMAICAN MANUFACTURING INDUSTRY: THEIR RELATION TO THE PROBLEM OF SELECTIVE INDUSTRIALIZATION

# G. E. CUMPER

This paper is intended to throw light on three topics; first, variations in value productivity within Jamaican manufacturing industry; second, the general structure of Jamaican industry; and third, the problem of what industries to encourage in a programme of selective industrialisation in Jamaica.

The paper is based on Tables 1-20 below, which represent data extracted from the returns made by manufacturers under the Census of Manufactures undertaken by the Central Bureau of Statistics, Kingston, in 1946. It is necessary at the beginning to stress the limitations of this census, and so of the tables below. Firstly, the coverage of the census was far from complete, mainly because it was in effect voluntary. Statutory mechanisms exist in Jamaica for making it compulsory to reply to such censuses and surveys, but invoking these sanctions has proved difficult in practice and the goodwill existing among manufacturers toward official statistical investigations is certainly not enough to produce a complete response to a census inquiry not backed by legal sanctions. It is difficult to estimate the degree of coverage which was attained; in the adjoining table the total value of the gross product of manufacturing industry, the total wage bill and the number of operatives, estimated as shown, are compared with the corresponding totals for those firms that made sufficiently complete and reliable returns under the 1946 census.

Estimated Total Total recorded for all manufacunder 1946 turing industry census Gross product. £16,000,000a £8,783,000 Wage bill. £ 1,700,000b £1,011,000 Number of operatives. 20,000° 11,726

Estimated from 'National Income of Jamaica, 1943, 1946' (1)

Estimated from 'National Income of Jamaica' and population census of 1943. Estimated from population census of 1943.

It appears that on the whole about one half of Jamaican manufacturing industry made returns which were sufficiently complete and reliable to be included in the sample.d (This does not mean that certain

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The word 'sample' is used here as a matter of convenience but it is not meant to imply that the establishments covered were selected by a formal sampling

of the other returns made may not be useful for other purposes—for example, in the compiling of national income estimates, a principal object of the census. The relations of the census totals to the estimated complete totals are for gross product, wage bill and number of operatives 55, 59 and 59 per cent respectively. Unfortunately, there is no clear indication whether the omissions were biased in any particular direction for example, towards the smaller firms. A good a priori argument can be made out for expecting the larger firms to make more, and more complete, returns than the smaller; on the other hand, it is clear from inspection of the census schedules that no returns were received from the leading firms in some industries (e.g. printing, metal manufactures). The most complete coverage was obtained in certain industries where the number of firms was small (e.g. soap and margarine making).

There is a second important limitation to be borne in mind. The sector of the economy which falls outside manufacturing industry is much larger in Jamaica than in the countries of Northwest Europe or North America; it consists not only of agriculture, but also of semiservice industries like dressmaking and of a wide range of personal, services. Conditions in factory industry, which are those chiefly illuse trated by the tables below, are much less typical of the economy as a whole than would be the corresponding conditions in the 'western countries.

The amount of information which could be displayed in the tables has been limited by the obligation to avoid disclosure of particulars of individual establishments. This has been especially irksome in the case of industries from which one, two or three establishments only made returns, since it has been necessary to lump the figures relating to all these together. Some important and interesting industries (e.g. soap and margarine making, biscuit making, knitted goods manufacturing) have suffered in this way.

The concepts used in the tables are mostly familiar ones:

- (i) number of employees. This refers to operatives only, excluding clerical and salaried workers. It represents the average of the twelve monthly employment figures given for the year in the returns.
- (ii) net product and net product per worker. This refers to the total value of production, less the value of the materials used during the year, either alone (net product) or divided by the number of employees as defined above (net product per worker).
- (iii) fixed capital and fixed capital per worker. This refers to the value of fixed capital given in the return. In some cases no value was given and an estimate was made from the value of depreciation, rent and other information; estimated figures, and group totals containing such figures, are given in brackets.
- (iv) wage bill and average wage per worker. This figure is taker In the from the returns, and refers to operatives only. It has been checked ind of

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wherever possible against the wage figures obtained by the Bureau of Statistics for its annual survey of Kingston's industries.

(v) gross margin and gross margin per worker. This represents the value obtained by subtracting from the net product the wage and salary bills, and includes charges on capital, profits and miscellaneous expenses.

(vi) fuel costs and fuel costs per worker.

(vii) horsepower in use and horsepower per worker. The total or horsepower used refers to the horsepower of prime movers, plus the horsepower of electric motors driven by purchased power. \* Some of these definitions are less precise than would be desirable, but unfortunately the limitations of the data are such that a more detailed statement of the items included under each head would give a spurious impression of accuracy.

The data have been cross classified by size of establishment and by category of industry. Two criteria of size have been used; the number of non-salaried employees of the establishment (Tables 1 to 13) and the value of the gross product of the establishment (Tables 14 to 0). The division into categories requires some explanation. During the tabulation of the material it became evident that certain types of idustry had characteristic levels of net product per worker, fuel cost per worker and other variables and that not only were the levels of these variables characteristic but also their trend with increasing size of establishment. A three fold classification was worked out into bulk process industries, primary product industries and assembly and miscellaneous industries. A list of the industries in each category is given in the Introduction to Tables 1-13 below; broadly speaking the first group is distinguished by the fact that material is handled mainly in the liquid form, and the second by the application of a few simple processes to locally grown raw materials, while the third consists of all other industries, most of which may be broadly described as assembly industries. Such a division is somewhat arbitrary and some industries cannot be assigned with certainty to one category rather than another; but the classification seems to be justified by the degree of consistency of the results obtained.

Over half the employees covered by the sample are found in the bulk process industries (Table 1) and over half of these are in sugar and rum manufacturing. The number employed in all sugar factories in 1946 was 5,000—6,000 out of a total in all factory industry of about 20,000, so that the sugar industry has been given an appropriate iment and portance in the sample. After sugar the industries with the greatest ng such number of employees are cigar making (1448 employees) and baking (1366 employees); these, with sugar, account for more than half the

s taker! In the Jamaican context the phrase 'prime movers' may be taken to mean any checked ind of engine supplying motive power for the machinery of the establishment, cept electric motors driven by purchased electricity.

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wage earners in the sample. More than half the total net product of establishments in the sample (Table 2) comes from the bulk process

The value of the net product per worker (Table 3) is a convenient summary measure of the productivity of the worker, though the factors which determine it are so many and complex that its interpretation is not easy. It needs to be stressed that many of the factors which determine the level of productivity in this sense are external to the worker - for example, capital equipment and factory organisation. There is a very wide range in the value of the net product per worker between different Jamaican industries. Three of the primary product industries, copra, cordage and cottage industries, have a net product per worker of less than £50 a year. Several of the 'single plant' industries, on the other hand,—for example, the manufacture of ice—have a net product per worker of more than £700 per year. This disparity between the least and the most productive industries seems to be greater than in the case of any other country for which figures on a similar basis are available (e.g. the United States, Puerto Rico, Palestine, Australia), though precise measurement is difficult; between these countries the range between the most and least productive industries is greater for the 'backward' than for the 'advanced' countries.

The net product per worker also varies greatly from category to category. The average net product per worker in the primary product industries is only £107, with only one industry over £200. In the assembly industries the average is £248 and in the bulk process industries £346.

Reference to Chart I will show that the trend of net product per worker with increasing size of establishment is different according as the basis of classification is the number of employees in the establishment or the value of the gross product. On the second basis there appears to be a definite tendency for the net product to increase with increasing size of establishment; on the basis of number of employees in the establishment, however, the net product falls between the first two size groups, rises through size groups III and IV and falls again to group V.a This general form appears to be characteristic of the data when classified on the basis of number of employees, since the value of fixed capital per worker, gross margin per worker and fuel cost per worker follow a similar pattern. When the overall figures are broken down into categories (Chart II) it can be seen that while the bulk process industries conform closely to the overall patterns the other two categories show deviations. When classified by the value of the gross product of the establishment, the primary product industries show only a very moderate increase in net product per worker with increasing size. When classified by the number of employees per establishment,

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a For definition of these size groups see Introduction to Table 1-13.

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the assembly industries show an upward trend, while that of the primary product industries appears indeterminate.

The overall figures for the value of fixed capital employed per worker follow closely those for the value of net product (Chart I). A breakdown by categories (Chart III) shows that this overall trend is to a great extent the result of the concentration of fixed capital in the bulk process industries; for the trend of the primary product and assembly industries is quite divergent, and it is only the fact that the general level of the value of fixed capital per worker is high in the bulk process category that gives the overall figures their actual form. appear that the largest establishments in the primary product and assembly industries, whichever criterion of size is adopted, tend to have a lower capital value per worker than the smaller. When this fact is joined to the fact mentioned above that the trend of net product per worker with increasing size in these categories is not downward but upward, we have some grounds for suggesting that in these categories a large establishment has advantages of efficiency which do not consist in the possibility of the substitution of capital for labour.

There are marked differences in average annual wage between the categories. The average wage is markedly lower in the primary product industries than in the others, the average in these industries being £56 per year; the average for the bulk process industries is £95 and for the assembly industries £102, though this last figure is much influenced by a single group, without which the average would be only £82. It is noticeable that wages in the single plant industries and in sugar manufacturing are higher than the average. The trend of the average wage is consistently upward with increasing size of establishment, whatever basis of classification is adopted, and this trend is preserved when the overall figures are broken down by categories (Charts I and IV).

The gross margin (Tables 8 and 9) is taken to be the difference between the net product and the wage and salary costs of the establishment, and its main components are therefore capital charges and profits. Since the net product per worker enters into the definition of the gross margin per worker, and one of its main components is capital charges, it is not surprising that the overall a figures for the gross margin per worker follow the same general pattern as those for the net product and value of fixed capital per worker. The figures for the primary product, assembly and bulk process industries are £41, £99 and £186. When the establishments are classified by value of gross product the trend of the overall figures with increasing size is fairly consistently upward; classification by number of employees gives the S-shaped pattern mentioned above in connection with the net product per worker (Chart I). A breakdown by categories shows no marked divergence

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Overall is used here to denote the average for all establishments without subdivision into industrial categories.

from the overall patterns; it is difficult, however, to identify any positive trend in the primary product industries (Chart V.)

The cost of fuel used and the horsepower in use in an establishment tend to be correlated with the amount of fixed capital, and the trends shown by the fuel cost per worker and the horsepower in use per worker (Tables 11 and 13, Chart VI) are similar to those of the value of fixed capital per worker. The assembly industries have a lower average fuel cost per worker and horsepower in use per worker than the primary product industries, however, although the value of fixed capital per worker is higher; this may reflect the fact that much of the fixed capital of such assembly industries as furniture making and (hand) printing does not involve the use of mechanical power. The returns were less complete on the subject of the horsepower in use than on any other point, and the item has been omitted from the set of tables (14-20) which are based on the classification of establishments by value of gross product.

It is possible from the tables which follow this paper to make a limited comparison of these industries which consist of one, two or three plants (these are called in the tables single plant industries, since the majority consist of one establishment) with other industries of the same general type operating under more competitive conditions. The sugar industry is for several reasons a special case and is not included in this comparison. Generally, in the single plant industries size of establishment, net product per worker, average wage and gross margin per worker tend to be higher than in the other industries, and in the bulk process industries the value of fixed capital per worker also tends to be higher. The single plant industry in Jamaica usually enjoys a substantial degree of monopoly, and in some cases such an industry has been set up with the express intention of serving the whole island, sometimes supported by a statutory franchise; so that there is nothing unexpected in the result of the above comparison.

It is also possible (from Tables 15 to 20) to compare the sugar industry with other industries of the same general type. The sugar industry in Jamaica consists of about twenty concerns all of which are members of a single marketing organisation. The data below may be summarised by saying that the industry has a higher value of fixed capital per worker and a higher annual wage than the average for the bulk process industries, but a lower net product and gross margin per worker. In the smaller factories the gross margin is actually negative. In qualification of these figures, it should be mentioned that the procedure the cartel follows in distributing the proceeds of the sale of the island production among the establishments is not entirely clear, so that the gross product used may be in error; moreover, all these factories draw part of their raw material from their attached estates and the book price at which the transfer is effected may not correspond to the true economic price. However, these figures probably give a truer

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The method of tabulation used below was adopted as a working device and the division into three categories of industry has only a slight basis in theoretical economics. Sargant Florence in his 'Logic of Industrial Organisation (2) uses a division of industries into 'assembly' and 'non-assembly' and further mentions within the latter group the 'continuous' industries, but this division by no means coincides with that used here. It is clear, however, that the technical conditions in an industry where the raw material is handled mainly in liquid form are different in important respects from those in other types of industry, and that such differences will show themselves in the proportions of capital and labour employed and the bulk (and presumably value) of product handled by the worker. This provides the basis for separating the bulk process industries. The primary product category is distinguished mainly on the basis of the raw materials, and secondarily on the type of market which faces the product, it being for most of these industries unstable in price and extent. The remaining industries, forming the 'assembly and miscellaneous' industries, coincide roughly with Florence's assembly industries, but include some (such as the manufacture of knitted goods) which he would perhaps have excluded

While the small size and other defects of the 'sample' of establishments on which these tables are based must make one cautio ; in drawing conclusions, certain further points can be suggested. One is that while the bulk process (that is, mainly heavy) industries show a higher productivity per unit of labour than the assembly industries, this difference is less than the proportionate difference in fixed capital requirements; more generally, perhaps, the yield per unit of capital invested appears to be greater for light than for heavy industry. A second point is that the relation between size of plant and capital investment per worker in the assembly industries does not appear to conform either to the conventional expectation that both will increase together, nor to the more modest one that the investment per worker will be independent of size of establishment. On the contrary, the larger the firm, the lower the value of capital employed per worker. The small size of the sample, which includes only a few plants in most industries, makes it impossible to check whether this relationship exists between plants of different sizes in a single industry, or only appears when industries are combined into the category. a

If one looks at the data with the special problem in mind of selecting what form of industry is most suitable for development in the West Indies, the most suggestive points may be summarised as follows:

(i) The bulk process industries showed the highest average net pro-

a See Introduction to Table 1-13 for definition of industrial categories used in this paper.

duct per worker (£346), the assembly industries rather lower (£248) bly ind and the primary product industries very low (£107).

(ii) The value of the fixed capital employed per worker was high in the bulk process group (£539) compared with the assembly group ratio of (£140) or the primary product group (£78).

(iii) The net product per £100 of fixed capital is higher in the assembly group (£177) and the primary product group (£137) than in the

bulk process industries (£64).

(iv) The average annual wage in the primary product group is low even after allowing for the seasonality of employment (£56) compared with the other two groups (£95 and £102).

(v) £100 worth of fixed capital in the bulk process industries is associated with an annual wage bill of only £18; the same amount of fixed capital in primary product industries produces a wage bill of £72, and in the assembly industries, £73.

(vi) In the bulk process industries the larger establishments tend to show a higher net product per worker than the smaller but a lower net product per £100 worth of fixed capital and a lower wage bill per

£100 worth of fixed capital.

(vii) Except in the primary product industries there is a general tendency for the larger establishments to pay a higher average annual wage.

These suggest the following propositions:

(i) A given investment in fixed capital applied in the bulk process industries will generate a smaller net product and wage bill than if applied in the primary product or assembly industries, subject to the reservation that an investment in e.g. sugar machinery may imply an accompanying investment in the production of cane, where the capital/ labour ratio is low.

(ii) The larger the establishment in the bulk process industries, the lower the net product and wage bill generated by a given investment.

(iii) The net product and wage bill generated by a given fixed capital investment are higher in the assembly industries than in the primary product industries.

(iv) In the assembly industries the net product and wage bill generated by a given fixed capital investment are not lower in the larger establishments than in the smaller.

It may also be noted that:

(v) The type of labour associated with the bulk process industries is, generally speaking, the operative grade; with the primary process industries, the unskilled grade; and with the assembly industries, the skilled grade.

Given that, in the West Indies, capital is scarce and labour is plentiful, relative to the situation in the 'developed' countries, these propositions suggest that the most economical type of industrialisation is one which concentrates on what have been loosely classified above as assem-

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bly industries; but with the reservation that where an industrial investment is to be considered as part of a wider investment programme that high in includes an expansion of primary production of a raw material, a high group ratio of product to investment in the primary sector may outweigh a low ratio in the industrial sector.

This conclusion is open to the criticism, which the writer feels could be equally made against much of the literature on 'planned' and 'stimulated' industrialisation, that it gives no weight to the varying demand conditions which face different types of industry in the Jamaican context or to the general demand situation of new industries in the area. Since the object of this paper is a limited one, being mainly to explore the implications of a particular set of data, the argument has not been developed further. But a fuller consideration of the subject would probably not vitiate what has been said above on the relative merits of different types of industry where it has already been determined that a choice between types is to be made.

### REFERENCES

- (1) MORAIS, A. J. National Income of Jamaica, 1943, 1946 Central Bureau of Statistics. Jamaica.
- (2) P. SARGANT FLORENCE (1933) The Logic of Industrial Organisation. Kegan Paul, London.

### INTRODUCTION TO TABLES 1-13

The source from which these tables have been compiled is the incomplete census of manufacturing industry carried out in Jamaica in 1946. The limitations of the material are discussed above. In Tables 1-13 the material is classified by industrial category and by size groups: the industrial categories used are as follows:—

# A. Assembly and Miscellaneous Industries.

Single plant industries—cigarettes, cooperage, electroplating, mattresses, neon signs, paper boxes, tyre retreading, knitted goods, wood boxes, wood shoe heels.

Other industries—furniture, light chemicals, miscellaneous metal industries, printing, shirtmaking.

## B. Primary Product Industries.

Bricks, coffee, copra, cordage, cottage industries, fruit packing, lime, coir, cigars.

## C. Bulk Process Industries.

Single plant industries—brewing, biscuits, citrus pulp, dyewood extract, condensed milk, oxygen, soap and margarine, ice.

Other industries—aerated waters, bakeries, citrus oils, pimento leaf oil, sugar.

The size groups are based on the number of persons employed by the establishment and are defined as follows:—

Group I Plants employing 1-10 workers.

Group II Plants employing 11-49 workers.

Group III Plants employing 50-199 workers.

Group IV Plants employing 200-499 workers.

Group V Plants employing 500 workers and over.

In these tables some totals include estimates for certain establishments. Where the estimated items exceed one third of the total given, the total is enclosed in parenthesis. Where estimates were not possible, the totals and averages omit certain establishments, and these totals are marked with an astevisk.

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TABLE 1. TOTAL NUMBER OF EMPLOYEES.

SIZE GROUP:	Number 1 - 10	of em	ployees in 50 - 199	establish 200 - 499	500 & over	Tota
INDUSTRIAL CATEGORY	:					
A. Assembly & Mis- cellaneous Industries						
Single plant industries	26	37	90	250	966	1369
Other Industries	149	483	284	250	_	1166
Total:	175	520	374	500	966	2535
B. Primary Product Industries	29	515	734	542	1238	3058
C. Bulk Process Industries					4	
Single plant industries	4	15	864	280	_	1163
Other Industries	268	1132	1075	1832	663	4970
Total:	272	1147	1939	2112	663	6133
TOTAL: all industries	476	2182	3047	3154	2867	11726

TABLE 2. TOTAL NET PRODUCT (£).

SIZE GROUP:	Num 1 - 10	ber of en 11 - 49	nployees i 50 - 199	n establis 200 - 499	hment:— 500 & over	Total
INDUSTRIAL CATEGOR	Y					
A. Assembly & Miscellaneous Industries						
Single plant industries	7433	4922	27648	85773	282130	407906
Other Industries	22656	94365	68162	36668	_	211851
Total:	30089	99287	95810	122441	282130	629757
B. Primary Product Industries	3690	48692	75480	44220	155973	328055
C. Bulk Process Industries						
Single plant industries	(2000)	5252	495632	196353	_	699237
Other Industries	70079	308457	273663	(576284)	191642	1420125
Total:	72079	313709	769295	772637	191642	2119362
TOTAL: all industries	105858	461688	940585	939298	629565	3077174

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TABLE 3. NET PRODUCT PER WORKER (£).

SIZE GROUP:	Number 1 - 10	er of emp	oloyees in	200 -	500 &z	Total
THE TOWN THE CAMPAGE		49	199	499	over	
INDUSTRIAL CATEGORY  A. Assembly & Miscellaneous Industries	<i>t</i> :		•			
Single plant industries	286	133	307	343	292	298
Other Industries	152	195	241	147	_	182
Total:	172	191	255	245	292	248
B. Primary Product Industries	127	95	103	82	126	107
C. Bulk Process Industries						
Single plant industries	(500)	350	574	701	_	601
Other Industries	262	272	255	365	288	284
Total:	265	274	397	366	289	346
TOTAL: all industries	222	212	309	298	220	262

TABLE 4. VALUE OF FIXED CAPITAL EMPLOYED (£).

SIZE GROUP:	Num 1 - 10	nber of e 11 - 49	mployees 50 - 199	in establis 200 - 499	shment:— 500 & over	
INDUSTRIAL CATEGOR	RY:					
A. Assembly & Mis- cellaneous Industries						
Single plant industries	8861	8850	15097	(50000)	88334	171842
Other Industries	32561	73357	52666	(25000)	_	182584
Total:	41422	81907	67763	(75000)	88334	354426
B. Primary Product Industries	7190	66617	94963	49425	(20000)	238195
C. Bulk Process Industries						
Single plant industries	2000	12200	446785	87815	_	548800
Other Industries	50775	167595	501127	1458928	576973	2755398
Total:	52775	179795	947912	1546743	576973	3304198
TOTAL: all industries	101387	328319	1110638	1671168	685307	3896819

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TABLE 5. VALUE OF FIXED CAPITAL EMPLOYED PER WORKER (£)

SIZE GROUP:	Number 1 - 10	of emp	oloyees in 50 - 199	establish 200 - 499	ment:— 500 &	Tota
INDUSTRIAL CATEGORY:	10	49	199	499	Over	
A. Assembly & Miscellaneous Industries						
Single plant industries	341	231	168	(200)	91	126
Other Industries	218	152	185	(100)	-	157
Total:	237	158	181	(150)	91	140
B. Primary Product Industries	248	129	129	91	(16)	78
C. Bulk Process Industries						
Single plant industries	500	813	517	314	_	472
Other Industries	190	148	466	796	870	554
Total:	194	157	489	732	870	539
TOTAL: all industries	213	150	365	530	239	332

TABLE 6. TOTAL WAGE BILL (£).

Total

Total

SIZE GROUP:	Numl 1 - 10	per of er 11 - 49	mployees in 50 - 199	establis 200 - 499	shment:— 500 & over	Total
INDUSTRIAL CATEGORY	<b>7</b> :					
A. Assembly & Mis- cellaneous Industries						
Single plant industries	1962	2728	13173	23692	129061	170616
Other Industries	9932	42764	21650	12945	_	87291
Total:	11894	45492	34823	36637	129061	257907
B. Primary Product Industries	1291	21337	38082	21802	87269	169781
C. Bulk Process Industries						
Single plant industries	374	1426	86110	28857	-	116767
Other Industries	18608	83513	95526	188689	80390	466726
Total:	18982	84939	181636	217546	80390	583493
TOTAL: all industries	32167	151768	254541	275985	296720	1011181

TABLE 7. AVERAGE ANNUAL WAGE (£).

SIZE GROUP:	Number 1 - 10	of emp 11 - 49	ployees in 50 - 199	establish 200 - 499	500 & over	Total
INDUSTRIAL CATEGORY:						
A. Assembly & Mis- cellaneous Industries						
Single plant industries	75	74	146	95	134	125
Other Industries	67	89	76	52	_	75
Total:	68	87	93	73	134	102
B. Primary Product Industries	45	41	52	40	70	56
C. Bulk Process Industries						
Single plant industries	93	95	100	103	_	100
Other Industries	69	74	89	103	121	94
Total:	70	74	100	103	121	95
TOTAL: all industries	68	70	84	88	103	86

TABLE 8. TOTAL VALUE OF GROSS MARGIN (£).

SIZE GROUP:	Numb 1 - 10	er of en 11 - 49	50 - 199	in establis 200 - 499	shment:— 500 & over	
INDUSTRIAL CATEGORY:						
A. Assembly & Mis- cellaneous Industries						
Single plant industries	2846	350*	5891	57946	105739	172772*
Other Industries	6021	21489	27357	19235	_	66102
Total:	8867	21839	33248	77181	105739	248874*
B. Primary Product Industries	1691	19444	23275	4326	62704	111440
C. Bulk Process Industries						
Single plant industries	?	3209	265764*	139209	_	408182*
Other Industries	39605	157392*	127296	298462	81407	704135
Total:	39605*	160601*	393033*	437671	81407	1112317*
TOTAL: all industries	50163*	201884*	449556*	519178	249850	1470631*

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TABLE 9. VALUE OF GROSS MARGIN PER WORKER (£).

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SIZE GROUP:	Number 1 - 10	of emp	bloyees in 50 - 199	establish 200 - 499	nment:— 500 & over	Total
INDUSTRIAL CATEGORY:						
A. Assembly & Mis- cellaneous Industries						
Single plant industries	109	13*	65	232	109	126*
Other Industries	40	44	96	77	-	57
Total:	51	43*	89	154	109	99*
B. Primary Product Industries	- 58	38	58*	8	51	41*
C. Bulk Process Industries						
Single plant industries	?	214	356*	497	-	391*
Other Industries	148	139*	118	163	123	142*
Total:	148*	144*	216*	207	123	186*
TOTAL: all industries	106*	94*	173*	165	87	131*

TABLE 10. TOTAL FUEL COSTS (£).

SIZE GROUP:	Numbe	r of em	ployees in	n establis	hment:—	Total
	10	49	199	499	over	
INDUSTRIAL CATEGORY	:					
A. Assembly & Mis- cellaneous Industries						
Single plant industries	969	189*	_	1550	1535	4243*
Other Industries	620	2003	1783	349	-	4655
Total:	1589	2192*	1783	1899	1535	8998*
B. Primary Product Industries	459*	3836	4822*	3525	1622	14264*
C. Bulk Process Industries						
Single plant industries	676	838	43127*	10642	_	55283*
Other Industries	6713	18425	11999	53758	19169	110064
Total:	7399	19263	55126*	64400	19169	1653574
TOTAL: all industries	9447*	25291*	61731*	69824	22326	188619*

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TABLE 11. FUEL COSTS PER WORKER (£).

SIZE GROUP:	Number 1 - 10	of em	ployees in 50 - 199	establish 200 - 499	ment: 500 &	Total
INDUSTRIAL CATEGORY					0101	
A. Assembly & Miscellaneous Industries	•					
Single plant industries	37.3	8.2*	_	6.2	1.6	3.14
Other Industries	4.2	4.1	6.3	1.4		4.0
Total:	9.1	4.3*	4.8	3.8	1.6	3.54
B. Primary Product Industries	17.0*	7.5	9.9*	6.5	1.3	5.19
C. Bulk Process Industries						
Single plant industries	169.0	55.9	57.8*	38.0	_	52.9*
Other Industries	25.0	16.3	11.2	29.3	28.9	22.1
Total:	27.2	16.8	30.3*	30.5	28.9	27.5*
TOTAL: all industries	19.8	11.6	23.0	22.1	7.8	16.6

TABLE 12. TOTAL HORSEPOWER IN USE.

SIZE GROUP:	Number 1 - 10	of er 11 - 49	mployees in 50 - 199	establis 200 - 499	shment:— 500 & over	Total
INDUSTRIAL CATEGORY:						
A. Assembly & Mis- cellaneous Industries						
Single plant industries	60*	30	10	?	33	133*
Other Industries	69*	120	68*	?	_	257*
Total:	129*	150	78*	?	33	390*
B. Primary Product Industries	34*	322*	415*	606	?	1377*
C. Bulk Process Industries						
Single plant industries	60	?	(977)*	740	_	1777*
Other Industries	270*	480*	5018*	20486	3942	30196*
Total:	330*	480*	(5995)*	21226	3942	31973*
TOTAL: all industries	493*	952*	6488*	21832*	3975*	33740*

TABLE 13. HORSEPOWER IN USE PER WORKER.

	Number	of emp	oloyees in	establish	ment:-	
SIZE GROUP:	1 -	11 - 49	50 - 199	200 - 499	500 & over	Total
INDUSTRIAL CATEGORY	<b>7</b> :					
A. Assembly & Mis- cellaneous Industries						
Single plant industries	2.7*	0.8	0.1	?	0.03	0.1
Other Industries	0.5*	0.2	0.2*	?	-	0.24
Total:	0.8*	0.3	0.4*	?	0.3	0.24
B. Primary Product Industries	1.9*	0.8*	0.9*	1.1	?	0.94
C. Bulk Process Industries						
Single plant industries	15.0	?	1.5*	2.6	_	1.9*
Other Industries	1.0*	0.4*	5.6*	11.6	5.9	6.14
Total:	1.3*	0.5*	3.6*	10.1	5.9	5.74
TOTAL: all industries	1.2*	0.6*	2.8*	7.6*	2.4*	3.84

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Total

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#### **INTRODUCTION TO TABLES 14-20**

The general remarks given above in the introduction to Tables 1-13 and the definitions of industrial categories given in that introduction apply also to Tables 14-20. The size groups used in Tables 14-20 are based on the value of the gross product of the establishment and are defined as follows:—

Group I	Plants with gross product of £1	-4,999
Group II	Plants with gross product of £5	5,000 —9,999
Group III	Plants with gross product of £1	10,000 —49,999
Group IV	Plants with gross product of £5	50,00099,999
	Plants with gross product of £10	

Table 14 presents a summary statement of the net product, fixed capital, annual wage, gross margin and fuel cost per worker for all establishments, classified by the size groups defined above and by industrial categories. Tables 15-20 present similar data on the bulk process industries alone, showing separately the totals and averages for the sugar industry, for single plant industries and for other industries in that category.

In compiling Table 14 establishments for which certain items depended on estimates were omitted, and none of the figures given in that table therefore depend on estimates.

TABLE 14. VALUE OF NET PRODUCT, FIXED CAPITAL EMPLOYED, ANNUAL WAGE, GROSS MARGIN AND FUEL COST, PER WORKER. (£)

SIZE GROUP:	ss Product 1 - 4.9	of estab 5 - 9.9	10 - 49.9	(£'000): 50 - 99.9	100 & ove
Net Product per Worker	*				
Assembly Industries	126	216	225	221	723
Primary Product Industries	43	77 228	117 166	293	121 489
Bulk Process Industries	167				
All categories	95	182	162	271	529
Fixed Capital per Worker					
Assembly Industries	162	194	182	?	97
Primary Product Industries	102	67	127	415	43
Bulk Process Industries	208	173	228	415	815
All categories	135	147	189	361	533
Average Annual Wage					
Assembly Industries	65	82	93	72	126
Primary Product Industries Bulk Process Industries	25 56	31 73	57 72	101	65
					112
All categories	46	63	71	92	123
Gross Margin per Worker					
Assembly Industries	25	63	67	101	555
Primary Product Industries Bulk Process Industries	9 98	32 114	37 82	130	44
	29	79	67		298
All categories	29	19	6.1	123	335
Fuel Cost per Worker	F 0	0.0	0.0		
Assembly Industries Primary Product Industries	5.0 5.5	8.6 5.8	3.8 6.8	3.6	2.5
Bulk Process Industries	19.4	26.7	15.4	27.3	3.3 35.7
All categories	7.4	16.8	11.2	20.1	
All categories	F . '%	10.0	11.2	20.1	23.3

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TABLE 15. BULK PROCESS INDUSTRIES: TOTAL NUMBER EMPLOYED.

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SIZE GROUP:	4.9	9.9	10 - 49.9	50 - 100 & 99.9 over		Total
Single Plant industries	_	19	215	50	879	1163
Sugar milling Other industries	126	320	727 924	461 246	2053 113	3241 1729
Total:	126	339	1866	757	3045	6133

TABLE 16. BULK PROCESS INDUSTRIES: TOTAL NET PRODUCT & NET PRODUCT PER WORKER (£).

SIZE GROUP:	Value 1 - 4.9	of Gross 5 - 9.9	Product 10 - 49.9	of esta 50 - 99.9	blishment 100 & over	(£'000): Total
Value of net product:						
Single plant industries	_	7252	42681	74291	575013	699237
Sugar milling	_	-	(31628)	45730	830705	908063
Other industries	21091	70115	236296	102139	82421	512062
Total:	21091	77367	310605	222160	1488139	2119362
Net product per worker:		-				
Single plant industries	_	382	199	1486	654	601
Sugar milling	_	_	(44)	99	405	280
Other industries	167	219	256	416	728	296
Total:	167	228	166	293	489	346

TABLE 17. BULK PROCESS INDUSTRIES: TOTAL VALUE OF FIXED CAPITAL EMPLOYED AND FIXED CAPITAL PER WORKER. (£)

	Value	of Gross	Product	of establ	ishment	(£'000):
SIZE GROUP:	1 - 4.9	5 - 9.9	10 - 49.9	50 - 99.9	100 & over	Total
Value of fixed capital:						
Single plant industries Sugar milling Other industries	20736*	14 200 44550	9476* 272110 132244	232802 60723	425124 1963171 ?	448800* 2468083 257893*
Total:	20736*	58750	413830*	293525*	2388295*	3174776*
Fixed capital per worker:						
Single plant industries Sugar milling Other industries Total:	208* 208*	747 139 173	59* 374 143 228*	505 247 415*	483 956 ? 815*	424 762 152 539*

TABLE 18. BULK PROCESS INDUSTRIES: WAGE BILL AND AVERAGE ANNUAL WAGE. (£)

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	Value	of Gros	s Product	of estal	blishment	(£'000)
SIZE GROUP:	4.9	5 - 9.9	10 - 49.9	50 - 99.9	100 & over	Total
Wage bill:						
Single plant industries	_	1800	10625	5740	98602	116767
Sugar milling		_	56093	46404	230183	333310
Other industries	7069	22980	67798	23969	11600	133416
Total:	7069	24780	134516	76113	341015	583493
Average annual wage:						
Single plant industries	_	95	49	115	112	100
Sugar milling	_	-	77	101	112	103
Other industries	56	72	73	97	103	77
Total:	56	73	72	101	112	95

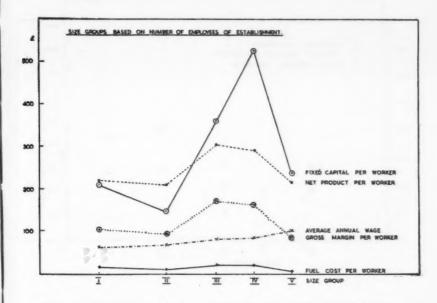
TABLE 19. BULK PROCESS INDUSTRIES: TOTAL VALUE OF GROSS MAR-GIN AND GROSS MARGIN PER WORKER. (£)

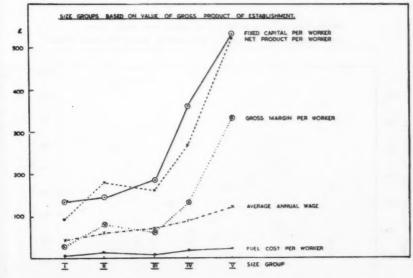
	Value	of Gross	Product	of establ	lishment	(£'000):
SIZE GROUP:	4.9	5 - 9.9	10 - 49.9	50 - 99.9	100 & over	Total
Gross Margin:						
Single plant industries Sugar milling Other industries	12370	3209* 34913	27914 -11283 134841	59800 -21162 59767	317259* 494051 61033	408182* 461606 302924
Total:	12370	38122*	151472	98405	872343*	1172712*
Gross Margin per worker:						
Single plant industries Sugar milling Other industries	98	109	130 -16 146	1196 -46 242	417* 241 540	392 <sup>4</sup> 142 175
Total	98	114*	82*	130	298*	196

TABLE 20. BULK PROCESS INDUSTRIES: TOTAL FUEL COST AND FUEL COST PER WORKER (£).

	Value	of Gross	Product	of establ	ishment	(£'000):
SIZE GROUP:	1 - 4.9	5 - 9.9	10 - 49.9	50 - 99.9	100 & over	Total
Fuel Costs:						
Single plant industries Sugar milling Other industries	2450	1514 7539	8989 5334 14436	14695 4045 1967	30085* 72974 1329	55283* 82353 27721
Total	2450	9053	28759	20707	104388*	165357*
Fuel cost per worker:						
Single plant industries Sugar milling Other industries	<u></u>	79.7 23.6	41.8 7.3 15.6	254.0 8.8 8.0	39.5* 35.5 11.8	52.8* 25.4 16.0
Total:	19.4	26.7	15.4	27.3	35.7*	27.5*
Total:	19.4	26.7	15.4	27.3	35.7*	2

CHART I





E'000): Total

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Total

108182\* 161606 302924 172712\*

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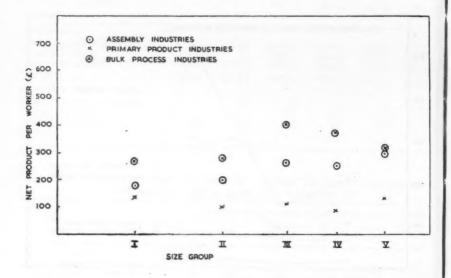
£'000): Total

55283\* 82353 27721 165357\*

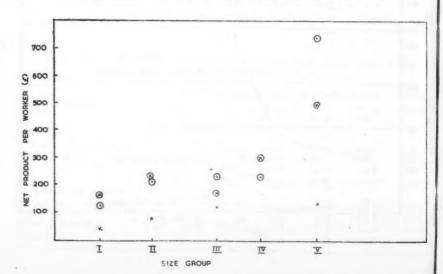
> 52.8\* 25.4 16.0 27.5\*

CHART II

NET PRODUCT PER WORKER BY SIZE GROUPS BASED ON NO OF EMPLOYEES

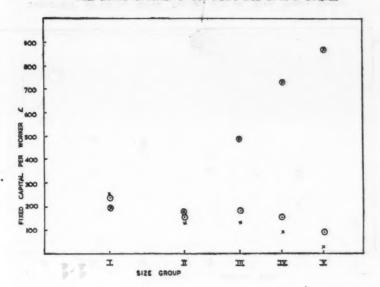


NET PRODUCT PER WORKER BY SIZE GROUPS BASED ON GROSS PRODUCT

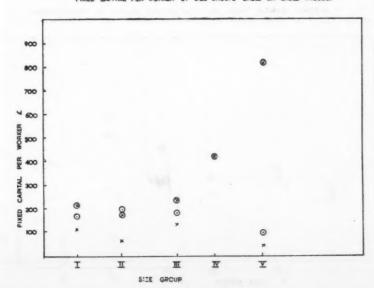


## PRODUCTIVITY AND SELECTIVE INDUSTRIALISATION CHART III

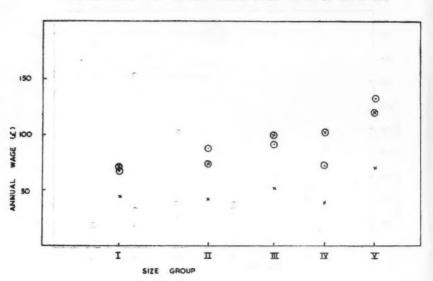
FIXED CAPITAL PER WORKER BY SIZE GROUPS BASED ON NO OF EMPLOYEES



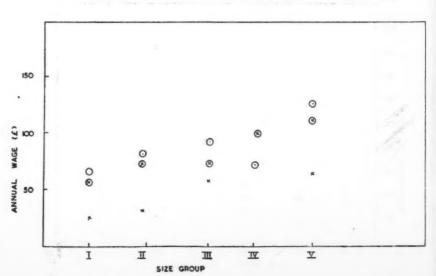
FIXED CAPITAL PER WORKER BY SIZE GROUPS BASED ON GROSS PRODUCT



AVERAGE ANNUAL WAGE BY SIZE GROUPS BASED ON NO. OF EMPLOYEE



AVERAGE ANNUAL WAGE BY SIZE GROUPS BASED ON GROSS PRODUCT



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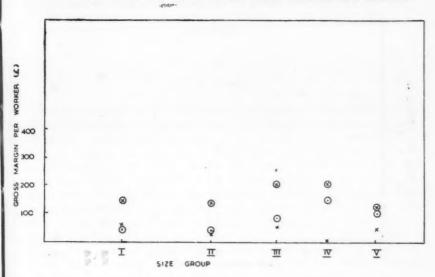
MARGIN PER WORKER (C)

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GROSS MARGIN PER WORKER (L)

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GROSS MARGIN PER WORKER BY SIZE GROUPS BASED ON NO. OF EMPLOYEES



GROSS MARGIN PER WORKER BY SIZE GROUPS BASED ON GROSS PRODUCT

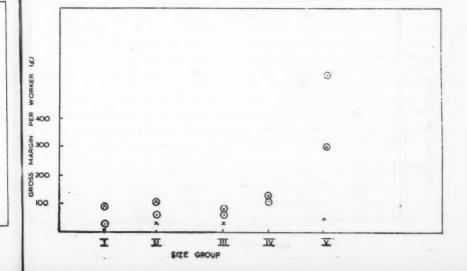
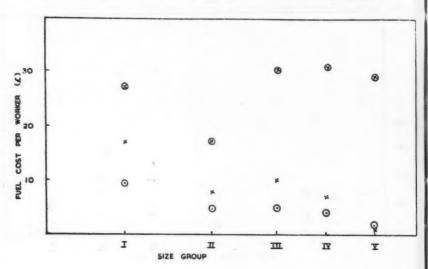
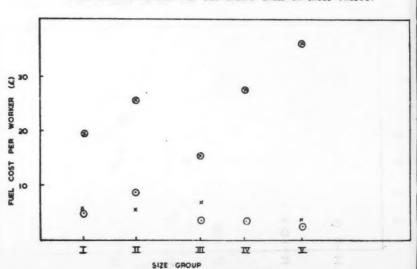


CHART VI

FUEL COST PER WORKER BY SIZE GROUPS BASED ON NO OF EMPLOYEES



FUEL COST PER WORKER BY SIZE GROUPS BASED ON GROSS PRODUCT



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# ASPECTS OF FAMILY ORGANIZATION IN A COASTAL NEGRO COMMUNITY IN BRITISH GUIANA: A PRELIMINARY REPORT <sup>a</sup>

### R. T. SMITH.

Family structure in the West Indies has generally been characterised as "loose", confusing, and disorganised. Controversies have emerged as to whether the present situation can be attributed to the persistence of "African" custom, reinterpreted in accordance with European values, or must be explained in terms of the conditions which existed during slavery days on the plantations. A determined effort to change the present form of family life is regarded as one of the main responsibilities of social welfare policy, though the magnitude of the task and the complexity of the situation militate against spectacular or even tangible results. However, interest in family structure in the West Indies is perhaps greater at the present time than it has been in the past, and it is not interest of an academic nature only, but one which regards the specific question of family organization as a "problem", the solution of which will take the form of action to promote change.

This paper deals with the question from the point of view of academic social anthropology, and is based upon material collected in one village only. Generalizations do not extend beyond the group which was actually studied, and there is good reason to believe that there are significant variations in the patterns of family organization even within the colony of British Guiana amongst different Negro groups. Even allowing for these variations a comparison of the results of this study and the findings of previous writers in other parts of the West Indies raises important questions as to the reasons for the existence of family systems with so many marked similarities over such a wide area. In order to give a satisfactory answer to this question it is necessary to compare the structure and functions of family and domestic units as they appear at the present time as parts of a wider social system. A priori explanations in terms of origins, be they a common African heriage, or a common slavery background, may tend to obscure factors in the contemporary social system which are important in maintaining the pattern of family organization.

The paper first examines the functions and internal structure of domestic units as they appear at the present time without any pre-

<sup>&</sup>lt;sup>a</sup> This paper was written during a short break in field work. It is therefore a preliminary and tentative analysis which may require modification in the light of further field research, or more detailed analysis of the data.

conceptions as to their mode of coming into being. This does not mean that the historical development of the West Indian Negro family system is unimportant, but that the end-product of that development shall first be examined before resorting to the past for "explanations" of contemporary patterns of behaviour.

#### THE SETTING

The village in which the present study was carried out lies on the coast of British Guiana between the Berbice and Abary rivers. Its population of just over 1700 a is composed of Negroes with a very few East Indians, Chinese, Portuguese and Mixed Persons. It can be considered to be a "Negro Village" b and is so considered by its inhabitants. Although it is referred to throughout as one village, there are in fact subdivisions, the major one resulting in there being two administrative areas each with their own village council. However, this question of political structure need not be gone into here, and for our purposes it is legitimate to treat the whole area as one village, and one social unit.

The village is 50-odd miles from Georgetown, the capital, to which it is connected by the only road in the coastal area. This road runs right along the Guiana coast, and the villages are strung along it like beads on a necklace; a very uneven necklace with three breaks at the three big rivers—the Berbice, Demerara and Essequebo. Ferries running across these rivers provide contact between the four major sections of coastland.

The village land is rectangular in shape with its narrow end about a half mile wide facing the sea. It runs some two and a half miles inland to the Crown Lands, which, although they are only leased for rice cultivation and pasturage, in reality extend the village lands for another eight miles or so back to the Abary creek which cuts across at an angle of about 45° to the sea. The freehold village lands (i.e. from the sea to the beginning of the Crown Lands) were mostly acquired by collective purchase after emancipation and divided up between the "proprietors" or shareholders. The dwelling area straddles the public road and is separated from the sea on the northern side by an area of common land which is used for grazing, and carries a playing field, and on the southern side is separated from the cultivation area by a piece of land reserved as a burial ground. The dwelling area is intersected by dams, the tops of which serve as streets, and a system of drainage trenches.

Houses are built either of wood, roofed with corrugated iron or shingle, c or of mud wattle with a roof thatched with bundles of grass. d They are invariably rectangular in shape and the normal size for a

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a From my own census figures.

b The local terminology is "African" or "Black people" rather than "Negro".

c These are what might be described as wooden slates or roof tiles.

d About 20% of all houses in the village are mud-thatch.

a The down t themse or in s

wooden house is about 12 ft. by 20 ft. divided into two rooms by an internal partition. Mud-thatch houses are usually smaller, and although both types are raised from the earth on posts, mud-thatch houses rarely have more than three feet clearance underneath, whereas most wooden houses are about eight feet from the ground. A kitchen may be built as a separate structural unit joined on to the house, or may, be a separate, and sometimes very dilapidated, building on the ground close to the house. Occasionally a kitchen, or a storeroom, is built underneath the house itself. Each house stands on a rectangular plot of land which usually has in addition a pit latrine, perhaps a small wooden shelter to serve as a bathroom, and one or more pens for fowls, goats or pigs. The whole plot on which these structures stand is referred to as a "yard" and if the owner is wealthy enough it may be "paled" (i.e. fenced). Sometimes a kitchen garden also stands on the lot, an increasingly common sight.

Furnishings in the house are meagre in the case of most families. The smaller of the two rooms almost invariably contains a bed and very little else except for the clothes of all members of the household hung around the walls, or packed in trunks or boxes. The living room is rarely without at least one table, and several chairs, with perhaps an old settee which can be used as a bed. Many houses have more elaborate furnishings with a side-board containing an amazing array of glasses and dishes, a few cushions, and passe-partout pictures of relatives, celebrities such as boxers, and film stars hung on the wall. Also on display will be school attendance and ability certificates, etc. Many people have papered the inside walls of their houses with old magazines and newspapers. The more colourful the magazines, the better the people like them. Within this living space dwell sometimes as many as 15 to 20 people though the average number of persons per house is about five. Normally they all eat from a common pot, but not all at once. a The woman of the house is the focus of attention,—responsible for the efficient running of the domestic affairs but helped by her daughters in all household tasks. Even small girls help with scrubbing the floors, washing up, etc. whilst boys help with chopping firewood, tending animals or fetching water.

#### THE DOMESTIC UNIT

The household is the domestic unit and all households have certain factors in common irrespective of their composition and internal structure. All households are collections of persons, almost invariably related by blood or marriage, inhabiting a common dwelling and eating from a common pot. Generally speaking there is a marked division of labour within the household group on the basis of sex. Women cook, wash

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a There is no conception of a meal being a family affair where everyone sits down to eat at a common table. Instead, members of the household dispose themselves around the house or the yard to partake of their meal in solitude, or in small groups based on age and sex.

and care the children, whilst men are responsible for the provision of cash and food. As we shall see later, this pattern is considerably modified in many cases, particularly in those households without adult male members.

The solidarity of the household group finds little expression in every-day village life, where so many functions are spread throughout different groups in the community. Education is the province of the schools; the churches are the centres of religious activity; except in the case of married or common-law couples, sexual gratification is found when and where opportunity presents itself, and many married men have "outside" affairs; economic activities tend to be individualised, but there is some degree of economic co-operation in that all members contribute to the food expenses, as and when they are able. Occasions on which solidarity is expressed are wakes and weddings, and it is on these occasions that the wider network of kinship ties comes to light, revealing also the strains and tensions within the social system. The village is not actually an endogenous group, but the preferred marriage is between two villagers. Inter-marriage with East Indians is practically non-existent, and when it is suggested to young women that they might like to marry an East Indian, the reaction is normally one of rather scandalized disgust that such a suggestion should be made. Incest prohibitions do not extend beyond first or second cousins, and marriages between first cousins are by no means unknown although they will meet with disapproval and the young couple will have to marry surreptiously outside the village. a Persons do not trace descent back for more than three or four generations, and the emphasis is on multilineal, rather than unilineal connections. This is bound up with the relationship of the people to the land on which they live, and the conception of the village as one unit of land (or rather as three units, but it is impossible to go into details of this subdivision here). Village agricultural and dwelling area land is divided up into small plots and there is no conception of a family being tied to one piece of land. Instead each individual acquires rights to the use of land, and a man, or woman, during her lifetime may acquire by purchase and inheritance title to many plots. Upon his, or her death, or even before, the land is redistributed according to need, and rarely passes in toto to any one heir. It may, and often is left jointly and becomes "children's property". b But even so it is redistributed or used according to need. However, it remains village land, and there is a strong feeling that land must not be alienated to "outsiders" at any price. This is an unwritten rule maintained even by the Loca wom for fainsis is no that is pawoul One ago won thousand the course on the course of the cours

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a In the case of any marriage or union which is disapproved of by the family of either partner there is a village saying that "children bring peace". This saying which is always prefaced by the remark "the old people say", has a wide applicability.

b I am told that in the past land was never divided, always remaining "children's property" and being ultimately referable to the "original proprietor". This state of affairs certainly does not exist today.

Local Authority despite the absence of any legal sanction. If a village woman marries an outsider, and they settle in the village and need land for farming, the local Authority or the person selling the land, invariably insist that it should be purchased in the woman's name so that there is no possibility of its being disposed of without her knowledge, and that of her family. The fear of letting East Indians into the village is particularly strong, and anyone who sold land to an East Indian would be strongly condemned by the whole weight of public opinion. One old childless couple who settled in the village some 20 to 30 years ago were recently sold the piece of land on which their mud house stands on the express understanding that they would not sell it again to any outsider.

Plots of land are bought and sold, leased and rented, or loaned within the village community, and they pass from father or mother, to son, daughter, grand-child, nephew or niece in plots. Persons are given or they buy land on which to build a house but rarely do you find an extended family living in close proximity to each other. There are a few cases where brothers, or brothers and sisters all live on one lot in separate houses but this is not the rule. Therefore land tends to be thought of, in terms of continuity of use, as being equivalent to the duration of the household group. As the household group disintegrates, so to a large extent does the possession of a collection of plots of land What does endure through time is the tenure of the village lands as a whole, and the village is "all one family" with the majority of the villagers claiming descent in some way from a semi-mythical ancestor named "Big Driver" who was supposed to be the most prolific of the group of ex-slaves who settled the village after emancipation.

Each household constitutes a separate cell then with its own complement of personnel but bound to other households through strong ties of kinship and also related to the village as a whole because of the fact of territorial allegiance expressed in the phrase—"all the village is one family". This is one side of the picture—one set of factors. On the other hand there are jealousies and tensions which perpetually express themselves in quarrels setting one individual against another, one family against another. Mutual distrust militates against co-operative enterprise, and it is a striking fact that even the household group cannot really be considered as a co-operative unit in the sense that individual interests are subjugated to the common weal. The household group rarely, acts as a unit. The care of the young children in the household is not necessarily a joint responsibility, different children being "cared" by different adult members of the household. In one household consisting of a married couple and their children, the male head was responsible for the provision of food for the whole family, but one son aged 25 was "caring" his young brother aged 13, buying his clothes and school-books, whilst the wife of the head regarded her youngest daughter aged 9 and her small son aged 7, as her own responsibility, clothing them

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ldren's s state from the money she got from working or buying and selling, or from her adult sons, whilst the rest of the children were the financial responsibility of the male head.

Eating habits reflect differentiation in the household group, the whole family practically never eating together. If there is a male head of the household he normally eats alone at the table, the rest of the group disposing themselves around the house or the yard in small groups differentiated on the basis of age and sex.

Conjugal partners living together do not share a community status in the sense that they do in the European cr American kinship system (3). One never sees a man and his wife together in public unless they belong to the teacher or professional class (of which there are few locally). Men and women have their own friends, and if a man and his wife happen to be at the same function, e.g. a village dance, it would be impossible to ascertain the fact that they were man and wife from observation of their behaviour, unless it were in the negative sense that they would not be demonstrating any familiarity.

Outbursts of quarrelling, often over trifling insults, bring out the feelings of solidarity of family groups, on the one hand, and also give expression to the tensions and jealousies existing between kin or neighbours. Violence rarely assumes extreme proportions and murder is practically unknown in the village, only one case having occurred within living memory. Intra-household quarrels do not normally involve other members of the community, and a man who beats or quarrels with his wife (legal or common-law) is not interfered with.

There is opportunity for women to engage in petty trade, especially in the sale of cakes, cassava bread, fowls, eggs, etc., and a few women, both single and married, work at breaking or carrying bricks for the Public Works Department; on the sugar estates; or taking in washing, making charcoal, etc.

House lots, like cultivation land, are subject to the imposition of a village rate, and failure to pay can be followed by the seizure and sale of moveable property, or even sale of the land. Rates are assessed by calculating how much money will have to be spent during the coming year on all village works, including drainage and irrigation, and striking a percentage of the total assessed value of lands.

The household is the natural unit of domestic organization and the term "house people" is used to designate its members, both living and dead. When rum is drunk inside a house, a little from the newly opened bottle is thrown onto the floor for the dead "house people". Intimate friends of a household group who are privileged to behave without restraint in the house, refer to themselves as "house people".

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On Sundays I used to watch people going to church past my house, and I cannot recall ever having seen a family going together as a group.

#### ECONOMIC BACKGROUND

The village is not, and never has been, a self-sufficient unit of production, and cash income is an essential factor in the economy of the household. Farming is one of a number of occupations which occupy the time of the average villager, and specialisation is the exception rather than the rule.

Rice is the main cash crop and is cultivated extensively in the village, some 750 acres being under cultivation this year. A proportion of the crop is stored for home consumption and the balance is sold at the now favourable rates. There is only one "big" rice farm in the village; that is owned by a resident who is a "coloured" man. He owns a tractor, but does not plant on the village lands proper having extensive cultivation areas up by the Abary creek. The average area cultivated by village farmers is roughly five acres, though many cultivate less, and a few have bigger holdings up to 20 acres, in fragmentary lots, much of it rented from larger land owners, for freehold and Crown Lands are in great demand.

Ground provisions are grown mainly for home consumption, or for sale within the village. Cassava and coconuts may be sold to itinerant buyers, but the importance of ground provisions as a source of cash income is small. Farms are small, more in the nature of gardens, and the tendency is to plant a bed of land with a crop of mixed provisions, reaping them as they ripen or as they are required. There is no rotation of crops and beds are abandoned to bush when they lose their fertility after about five years cultivation.

Work on the sugar estate, either cutting cane during the season, or maintaining drainage works, is a major source of cash income, but few men are regular estate workers.

A pattern of migration in search of cash income has long been a feature of village life. Trips to the gold and diamond fields are part of the experience of most of the older men, and balata bleeding was another common seasonal activity. During World War II, high wages were to be had at the American Bases, in the bauxite mining centres and even in the oil fields of Aruba, Curacao and Trinidad, and their attraction resulted in a rush from the village. When war ended the bauxite mines continued to maintain high production and many men There is now a definite pattern of migration on the part of young men to the bauxite towns of McKenzie and Kwakwani, and a new feature has been introduced into the migrations. Whereas in the past men went off on trips to the gold, diamond and balata fields with the intention of returning to their homes and their farms, the men at the bauxite towns are increasingly taking their families to settle there. Young men send cash home regularly to their parents, and particularly their mothers, but they also come home to seek a wife and take her back with them to the new centre of their lives. There is a continual coming and going between the village and these towns, particularly at holiday

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times. The older men assert that they left the village only to earn enough money to come back and build a house, and that the young men today care nothing for the village and prefer to spend their money on clothes, cinemas and dancing. It is certainly noticeable that when they come home to the village at holiday times, they are full of a new confidence born in the atmosphere of the urban centres where life is "faster" and values are different. The contribution they make to the total cash income of the village is still considerable, for wages are comparatively high and the obligation to send money home is strong.

Other sources of cash income are work for the Public Works Department, mainly on its road maintenance programmes, and from sale of

stock such as sheep, goats, cattle, and fowls.

Specialisation of trades within the village is not marked. There are two tailors, one blacksmith, one shoe-maker, a few bakers and a number of shop-keepers. A large number of women are dressmakers, and similarly there are quite a number of carpenters. Carpentry and house building is rarely a full time occupation, being mixed with provision and rice farming. Even the tailors and the shoe-makers plant rice, their ability to do so being enhanced by the fact that they are able to command enough capital to enable them to pay for ploughing and reaping.

Women are well able to make money by working on the estates, on the road programmes, by trading, working on reaping the rice harvests etc., and it is largely to women that the cash from the bauxite centres comes. There are also avenues of employment open to them in domestic service, and as washers for the wealthier families, or for men living alone. However, child-bearing interferes with these economic pursuits and makes them dependent on the earnings of men to a large extent

during this period.

It is clear then that the village is geared to a wider economic system, and that the sources of income are diffuse and often irregular. There is little chance to accumulate capital and the money that does enter the village from the outside, passes through the internal exchange system and out again through the shops and stores which supply cloth and wearing apparel, domestic utensils, essential items of foodstuffs such as rice, salt-fish, cooking oil, sugar, bread, etc. Rum is consumed in large quantities and expenditure on holiday entertainments, wakes, weddings and obeah a is comparatively high. Very little cash is retained in the form of capital development or improvement of land, though a greater amount goes into house-building.

The accumulated debt of the whole village is not large, most of it being represented by outstanding rates and outstanding debts to the co-operative credit bank. The loans issued by this latter appear to be absorbed mainly in house building projects, and that part which goes into a rarely able never

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West Indian term covering sorcery, divination and magical practices, often applied to nativistic cults and even traditional dances if there is a constellation of magical beliefs involved.

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into agriculture serves mainly to keep the rice farmer in operation. Loans rarely exceed 250 dollars and a bad rice crop will leave the farmer just able to operate whilst retaining his debt. Indebtedness to shop-keepers never assumes serious proportions in this village.

THE HOUSEHOLD HEAD Headship of the household is an ill-defined concept and the criteria of headship vary considerably. Those households which consist of a married couple, with a few important exceptions, recognise the male as the household head. He is responsible for the provision of food, the payment of rates and the maintenance of the house buildings. In the exceptional cases one finds a man who has married a woman late in life, usually a widow, and moved into her house where she is surrounded by her children and perhaps grand-children. In such a case the woman has the authority in the home, and consideration of such a case leads us to the formulation of an important principle concerning head-ship. The head of a household, male or female, maintains his or her position by virtue of the fact that they are at the centre of a cluster of kin. Obvious exceptions to this rule are those households consisting of a single person or a childless married couple. In these cases ownership of property and the accepted idea that a husband is the head of the household operate as determining factor. The ownership of the house, and/or the land on which it stands is in most cases a good index to the head-ship, of the household, though this is not an invariable rule. One finds many cases where a man puts his property in his wife's name in order that it shall not be levied upon for non-payment of debts he may incur in his own name.

What then are the functions of the household head? Primarily he or she is the person having the final say in who is to live in the house. Apart from this, the individual members of the household have a considerable amount of latitude when it comes to the ordering of domestic relations, and the internal economic organization of the household. The most important distinction between male and female heads of households is that a male head is expected to be the chief provider for the household, particularly for his wife and children. Female heads may be hard workers and may provide food for their children at a certain stage of their headship, but a woman who is in the position of head tends to be much more dependent upon her adult children for the maintenance of her position. If she has grown up sons and daughters they will probably be working and giving her money. Her daughters may be getting support from the fathers of their children and the way in which it is spent will be largely determined by the older woman especially when the daughter is young.

A man can always become head of a household by working for money to build a house and marrying or setting up a common-law relationship, whereas most women become household heads by virtue of their position as mothers and grand-mothers.

#### THE HOUSEHOLD GROUP—HEADSHIP

In considering the structure of the household group it is proposed to abandon the usual procedure of attempting to classify domestic groups by reference to the type of conjugal union upon which they are supposed to be based. A Instead the composition of the family group is examined in terms of its headship and the kinship relations obtaining among the members. For the purposes of this section all conjugal relationships involving common residence are regarded as being equivalent. Therefore no distinction is made between legal or "Christian" marriage, and "common-law" marriage, for in so far as they both result in the same structural arrangement they are identical. They are examined in more detail in the examination of conjugal relationships as distinct from the structure of the household group.

Table 1 shows the distribution of headships of households by sex and age for the whole village, including those individuals who live alone, (7 females and 25 males), but excluding eleven East Indian families b, and one household consisting of a young man of 21 and his two sisters who are living together whilst their parents are away in Aruba.

TABLE 1. HEADS OF HOUSEHOLDS BY AGE AND SEX

Age Group		Male Heads		
	No.	%	No.	%
20-30	9	4.7	12	9.9
31-40	35	18.1	11	9.1
41-50	57	29.5	25	20.7
51-60	43	22.3	21	17.4
61-70	35	18.2	28	23.1
71-80	12	6.2	13	10.7
81-90	2	1.0	10	8.3
91-100	0	0	1	0.8
TOTALS	193	100	121	100

Out of the total number of male heads in the 20 to 30 years age group, four are school-teachers, one is a clerk at the Public Works Department, and one is a shop assistant who lives alone in a room attached to the shop. In other words five out of the nine enjoy the advantages of a regular cash income and a higher social position, whilst one is atypical to our sample since he is not a household head in the true sense of the word. It is clear then that the age at which males attain to headship of a household is high, the modal figure being in the 41 to 50 years age group. This is correlated with the fact that many young men are out of the village working in the bauxite mining towns

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It is common to use the designations "Christian Family", "Faithful Concubinage", "Companionate Family", "Maternal or Grandmother Family". See (2) and (4).

b It is considered advisable to exclude these East Indian families since little or nothing is known of the factors influencing the structure of Indian families in B. G. and I certainly did not carry out detailed investigations with these families.

of McKenzie and Kwakwani, but also ties in with other important factors. Young men contribute liberally to the support of their parents. particularly their mothers, and so long as she is alive the man has a home to go to. We shall see later on that many a young man who has a well established mating pattern with a woman who is mother of his children will postpone the setting up of an independent household until the dissolution of either his or the woman's family of orientation. Even if they don't wait so long, there may be a period during which they live separately until several children have been born, and they are drawn together by their common interest in their children. Again, the accumulation of sufficient capital to build a house takes a long time and a man cannot become head of a household until he has either built his own house or inherited one. It is rare for young men to set up a household in a rented house. Today, the building of cheap mud-thatch houses is discouraged by the local authority and sanitary inspectors. An important fact to be taken into consideration is the expanding nature of this village. One hundred years ago, the dwelling area was probably less than half the size it is today, and a great extension of building took place during and after the war when wages were high. It is significant that many men, who accumulated a little money by working at the American Bases or in the bauxite mines, used it to build houses for their mothers and in few cases for their sisters, and did not necessarily seize the opportunity to get married and set up a household of their own.

So far as the women heads of households are concerned, eight out of the twelve in the 20 to 30 years age group are the wives of men who are working away from the village and they are therefore heads of households only on account of this fact. Of the other four, one is a widow and one is titular head of a household which contains her elder sister, husband and children. She became head on the death of her father a short time before, because he left the house to her. The vast majority of women heads are women who have passed the period of maximum sexual activity and child bearing. Some are widows and some are separated from their husbands, but almost all have children. The younger unmarried female heads of households may get support from the fathers of their children or receive presents from men to whom they extend sexual favours, as well as working or depending on relatives for help. The older female heads almost invariably have grown up children who contribute to the household economy even though they are not living there.

#### HOUSEHOLD COMPOSITION

In Tables 2 and 3 the composition of households under male and female heads are examined in more detail, and here a word of explanation regarding the categories of kin is necessary. In both Tables whenever the word "spouses" is used it ignores the distinction between legal

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little milies these and common-law partnerships, but definitely implies cohabitation. Excluded from these Tables are all those households where either a man or a woman lives alone (7 women, 25 men), and also the eleven East Indian families excluded from Table 1.

TABLE 2. RELATIONSHIP OF MEMBERS TO MALE HEADS OF HOUSEHOLDS

Category of Kin	Number	Percentage
1. Spouses	150	17.2
2. Sons	242	27.8
3. Daughters	249	28.6
4. Sons' children	39	4.5
5. Daughters' children	65	7.5
6. Children & grandchildren of sons'		
children	0	0
7. Children & grandchildren of daughters' children	5	0.6
8. Sons' spouses	5	0.6
9. Daughters' spouses	2	0.2
10. Spouses of childrens' children	1	0.1
11. Brothers	0	0
12 Sisters	5	0.6
<ol><li>Brothers' children &amp; grandchildren</li></ol>	5	0.6
14. Sisters' children & grandchildren	10	1.1
15. Other collaterals	4	0.4
16 Spouses of 13 & 14	1	0.1
17. Affines	85	9.7
18. Non kin	4	0.4
TOTALS	872	100

TABLE 3. RELATIONSHIP OF MEMBERS TO FEMALE HEADS OF HOUSEHOLDS

Category of Kin	Number	Percentage
1 Sons	92	19.6
2. Daughters	111	23.7
3. Sons' children	22	4.7
4. Daughters' children	121	25.8
5. Children and grandchildren of sons'		
children	1	0.2
6. Children & grandchildren of		
daughters' children	5	1.1
7 Sons' spouses	2	0.4
8. Daughters' spouses	4	0.9
9 Spouses of 3 & 4	3	0.6
10. Brothers	3 3 9	0.6
11. Sisters	9	1.9
12. Brothers' children, grandchildren	27	5.8
& great grandchildren		
13. Sisters' children, grandchildren	32	6.8
& great grandchildren		0.0
14. Spouses of 10, 11, 12 & 13	3	0.6
15. Other matrilateral kin	3	0.9
16. Other patrilateral kin	2	0.4
17. Affines	4	0.9
18. Non kin	16	3.4
19. Common-law husbands (no	7	1.5
children in common)		2.0
20 Children of 19	1	0.2
to Cimuted of 19	*	
TOTALS	469	100

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The outstandingly clear fact emerging from this tabulation of household membership is the presence of women of the parental generation in all households irrespective of headship. Of all the households with a male head only 18 are without a spouse, and in these the men are either widowers or men who live alone with relatives or friends. Women appear to occupy a position of primary structural importance even in households with a male head.

#### HOUSEHOLDS WITH MALE HEAD

Out of a total of 193 households with male heads, 25 are men living alone and 18 men are without spouses but in the overwhelming majority (150) spouses are present and of the 18 mentioned above at least eight are widowers and three of them have been deserted by their wives. In the whole sample of households with male heads only 24 collateral relatives of the head were found, as opposed to 85 of their affinal kin (including their spouses' children by other liaisons). These affinal kin cluster around the spouse rather than around the male head, and this emphasises the importance of the woman as the centre of the household, even if she is not the head. So far as the type of conjugal union which holds the head and his spouse together is concerned out of the total of 150, 125 heads are married to their spouses and 25 are living in a common-law union. Seven households are placed in the female head category, despite the fact that the head has a common law husband living with her, for in these seven cases clearly the woman rather than the man is the household head.

#### HOUSEHOLDS WITH FEMALE HEAD

These households number 121 including the seven households consisting of a woman living absolutely alone. It is possible to subdivide these households into a number of further categories, but the main distinction is between those where the female head is along with her young children, and those where she is surrounded by her grown up children, who are contributors to the household expenses, and probably her grandchildren. It has already been noted that a proportion of households with female heads come in this category only because their husbands are away working and regularly sending money home. There are 13 households where this can be considered to be the case, the women heads having only their young children with them, or in two cases their mother staying with them. Only 11 households consist of an unmarried woman and her young children. These are women of 45 and under who do not have grown up children to contribute to the household expenses. They manage to run their households on the support which is forthcoming from the father or fathers of their children, by working for cash or planting a farm and sometimes they supplement their income by granting sexual favours to men who give them presents in exchange. Some receive intermittent help from kin or neighbours.

#### THE NORMS OF DOMESTIC GROUPING

The mother-child relationship is the most important single relationship, and it is around mothers that all forms of domestic organization seem to crystallize. Many children are reared by persons other than their real mothers, and this tends to be particularly true of the maternal grandmother. The fact that many children refer to their grandmother as "Ma" and their own mother by her Christian name when they are young, indicates a degree of identification of the roles of mother and grandmother which is not often found elsewhere. As the child grows older and the real mother becomes more independent there is an adjustment of roles and the grandmother comes to be regarded as a grandmother proper who is indulgent towards her grandchildren and on terms of friendliness with them. The identification of the grandmother with the functions of a mother is a result of the pattern of dwelling and the fact that young child-bearing women are so closely dependent upon their mothers rather than on a man for help and companionship.

In a household, the presence of a male head produces important differences from the households with female heads, but the fact that the distribution figures indicate that there are few households with a male head that are without the head's spouse must cause us to accord a very significant place to women, particularly mothers, in our classification of household types. Women tend to be the centre of emotional ties, whilst men appear to lie on the fringe of strong affective relationships. On the basis of the distribution figures and observations of family relationships it is suggested that households should be classified under terms which take into account the focal position of women in all households, and recognize the presence of male household heads and an effective conjugal tie without giving exclusive prominence to this latter fact. Men have to be regarded more as providers with relatively weak ties to the other members of their families of pro-creation rather than strongly authoritarian and respected heads of a co-operative unit. There are cases in which one gets the development of a household in which the male head appears to be the authoritarian and wholly dominant person, but the lack of attitudes of submission and dependence on the part of the women modifies the process of centralisation of power, especially when the woman has passed the menopause.

The form which any particular household takes can be regarded as a result of the interaction of the two principles of allegiance to the solidary unit of the consanguineous type family and the desire to marry and set up a conjugal elementary family. Whatever form emerges from the interaction of these two principles, women of the parental or grandparental generation occupy an important structural position, based upon their relative immobility, and their socially ascribed roles as mothers. The dynamics of the system comes from the ever-recur-

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rent fact of the birth of children and their care by women, plus their economic dependence on men. There is no systematic ordering of a widspread kinship system with a legally defined lineage principle to influence the form of domestic structure, nor is there the new isolation of conjugal units each generation as in America (3). Rather there is a fluctuation between the two major types of structure—the conjugal family and the three generation female head family—both within the life span of any particular domestic unit and from one cycle of growth and dissolution to the next. Throughout these fluctuations it tends to be a matri-central unit which remains constant, with men as the mobile element, though not precluding the possibility of their becoming extremely stable heads of households.

Men often have a part to play in several households. Perhaps in one they are married head and father, whilst in two or three others they are fathers contributing a little to the support of "outside" children, and they may also be keeping a woman with whom they spend part of their time living in concubinage whilst still being married head of another household. Such a situation as the latter results in exaggerating the man's marginal position in his own household for few wives will tolerate a man's infidelity without serious protest. Apart from anything else he is diverting part of his income from his legitimate children. Children which a man got as the result of short premarital affairs, or even short affairs after marriage, will be recognized as part of the man's responsibility by his wife, and she will not mind, his giving them a little support. If her husband dies before her, she may, if she is a reasonable woman, give her husband's "outside" children a small share of the property which he leaves.

The conflicting loyalties of a man to his mother on the one hand and his wife on the other, is a very real and noticeable fact, especially when the man is young. Mothers often go to great lengths to prevent their sons marrying but normally a compromise is reached and the son continues to give his mother whatever he can afford. The right of the man to do this is recognised by wives, and it is said that a man can give part of his farm produce or cash to whoever he wishes, but once he has handed things to his wife or common-law partner the sole control passes to her and she can give away what she wishes in turn.

#### GROWTH PROCESSES OF THE HOUSEHOLD UNIT

The various ways in which new households come into being and develop through various stages over a period of time are now examined in more detail.

The starting point of all family organization is the birth of children and it is around their care and the responsibilities they involve that the patterns of household composition emerge. The moment a woman has her first child she becomes the potential focus of a household group but so long as her mother is alive she remains a daughter

as well as a mother, and she may well remain a secondary member of her mother's household for many years. The care of her children may be the responsibility of her mother during this period, and the almost universal practice is for children living in their mother's mother's household to refer to their maternal grandmother as "Mama" and to call their own mother by her Christian name.

If we take the birth of children as our starting point then we must examine the circumstances under which a woman's early years of child-bearing are spent, and follow through the possible lines of development which give rise to the various forms of household grouping.

The ideal pattern, based on an overt acceptance of Christian and European values, a is for a young woman to marry before bearing her first child, or indeed before losing her virginity. The majority of young girls and their parents look forward to marriage—to having a man who will be "responsible" for them, and the weddings of young childless women are given the maximum social recognition in ritual ceremony. The value set upon pre-marital chastity is expressed in the customs of one small group of people within the village. They are referred to as "Nyame" and are spoken of as a racial group noted for their small heads, the fact that their girls are supposed to be chaste, and their custom of looking for blood on the sheets of the marriage bed. The fact that this custom is ridiculed and sometimes considered disgusting by other members of the village in no way alters the fact that it is the expression of a social value which obtains to a certain extent for the whole village. The fact that one group should have become "specialised", so to speak, in maintaining the force of this social value is an interesting theoretical consideration.

Marriage before the period of child-bearing begins is, then, the ideal and is associated with the setting up of a separate household within which children will be born and reared. However, the number of such marriages is not large. At a rough estimate not more than 20 to 30 per cent of all marriages take place under these conditions. The likelihood of the girl becoming pregnant whilst still living in the house of her parents is much greater. The girl's first pregnancy, if she is living at home, is a major turning point in her life. It is almost certain that her mother (and probably her father if he is present) will be extremely angry, and it is quite common for the girl to be beaten or turned out of the house for "bringing shame on the family". She has deviated from the ideal pattern and proclaimed the fact that she is not a "good girl". It is on the occasion of these first pregnancies that artificially induced abortions are procured if the girl thinks that she can

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a Despite the designation "Christian and European values" it must be pointed out that marriage has a definite social value in the community under consideration and it may be misleading to regard monogamous legal marriage as something merely grafted onto the social system. As misleading, in fact, as to regard it as the only possible foundation for a stoble family system.

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successfully conceal "her shame". (It is fairly certain from village gossip, and from the fact that infections of the fallopian tubes in young women are common, that the practice of abortion is quite common). The intensity of the reaction on the part of her parents and the ridicule on the part of the community to her first pregnancy depends directly upon the girl's previous claims to be regarded as virtuous. Thus a girl who has been to High School in Georgetown, and consequently feels herself to be somewhat elevated in the social scale and likely to contract a good marriage sooner or later, will suffer most if she becomes pregnant. If the girl is older, or known to have a "boy friend", or to be free with her sexual favours despite parental control, her pregnancy will cause less disturbance.

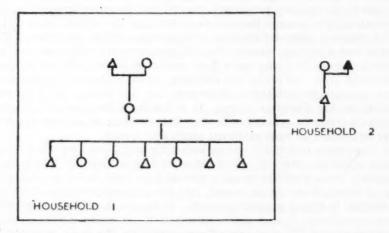
The severity of the economic burden placed upon the girl's mother or mother and father is often stressed as a cause of their anger, but it is doubtful if this rational explanation is as important as the fact that such treatment of the girl is an expression of the social value placed upon marriage. It is true that if the father of the child is young he will be hard pressed to contribute to its maintenance, and will usually deny paternity at first. More often than not though, he will acknowledge his child once it is born and provide what he can for it, especially if he lives in the village, or is a village boy.

As the pregnancy progresses and the fact becomes accepted by the community the parents become reconciled and the actual birth of the child causes a rearrangement of relationships within the group. The girl is now a mother, though the full implications of this fact are not likely to appear for many years if she continues to live with her mother. The child grows up under the authority of its maternal grandmother (and possibly grandfather), addressing her as "Mama", and its own mother by her Christian name. It is fed from the common pot and mixes on terms of equality with the other children of its own age who may be cousins, or even maternal aunts and uncles.

The father of a child has no authority over it so long as it is not living under his own roof. The father of a child living in its mother's mother's house would be severely abused if he tried to dictate the manner in which it should be reared, and his contacts with the child will be limited to giving it small presents. If he sees the child misbehaving outside the house he is at liberty to correct it, but so are a large number of categories of kin, and any villager might do the same provided he does not use physical violence. Maternal grandmothers, irrespective of whether the child is living with them or not, are entitled to order the child about or punish it but a paternal grandmother will hesitate to do this, for her son's children are "another woman's children". This of course does not apply if the child is living in the house of its paternal grandparents.

Such a case occurred during my stay in the village and the girl was beaten and kept indoors during the whole of her pregnancy.

Second and subsequent pregnancies are not accompanied by the same reactions, either on the part of the girl's family or of the community in general for her role as mother is now cast. From now on she is more likely to enter into more permanent relations with the father, or one of the fathers of her children. The birth of a child establishes a definite tie between a man and a woman and if he is contributing to its support it is likely that he will expect, and receive, more sexual favours from its mother. Thus a relation may develop which leads to a succession of children, the mother continuing to live in her parents' home, and having what amounts to a definite conjugal tie with the father of her children who in all probability lives in the home of his own parents. This is the extreme case of one possible line of development and the relationship can only continue without common residence so long as the two domestic groups to which the two parties belong remain intact. Upon the death of the head of either household a rearrangement will take place, almost certainly bringing the couple together into one household with their children. The figure shows the structure of two households; Household 1 contains a woman who has seven children by a man (in Household 2) who lives separately with his mother.



Still dealing with the case of the birth of children to the "unmarried" mother and having seen a possible line of development resulting in the establishment of a kind of conjugal tie through the birth of children and the recognition of paternity, but leaving each partner embedded in their respective families of orientation, we must recognize that this kind of relationship is only one possible line of development from the birth of a girl's first child. It is more likely that her first one or two children will result from quite experimental liaisons, and

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there is a possibility that she will never establish any kind of stable relationship with any of the fathers of her children even though they give her a little money now and again. In such an event she may live with her mother until her mother dies, and by that time her children will in all probability be grown up and helping with the household expenses, and she becomes a household head in her own right. In addition she may have been economically active, trading or working for cash, and have established herself as an independent woman. An interesting point to be noted is that it is perfectly possible for a matricentral household group to pass from economic dependence on the sons of the head to economic dependence on the sons of her daughter, without the introduction of a male affine into the picture. However, the fathers of the younger woman's children will doubtlessly be important as contributors at a certain stage in the developmental pattern. The importance will be accentuated in the absence of sons to provide assistance to the old female head. It should be noted too that there is never any recognition of the fact that a man may be supporting his sister's child. He sends money to his mother and if she chooses to "care" her daughter's children, that is her business. If a woman lives alone with her children she may get help from her brother or brothers but there seem to be very few cases of a woman being even partially dependent on her brother if she has children, unless she is living in his household—a rare occurrence.

The most common sequence of events is for a girl to have one or more children whilst living at home with her parents and then to move into a new home with the father of her latest child. They may marry straight away; live in a common-law relationship until they die; or live in a common-law relationship until they decide to marry later on. If the woman has children by previous mates they are often left in her mother's care, frequently taken with her to her new home, or occasionally handed over to their father's mother. Contrary to reports from other parts of the West Indies, such common-law marriages are remarkably stable, almost certainly as stable as legal marriages into which they are frequently transformed.

These then are, briefly, the various ways in which new households come into being or old ones maintain their continuity and we have taken as our starting point the birth of children. The setting up of a new unit of man, woman and children is often delayed, but does not prevent early child-bearing on the part of women. The young mothers attached to their families of orientation gradually hive off in separate households with one of the fathers of their children, and some daughters may stay behind to become heads of households in their turn.

<sup>&</sup>lt;sup>a</sup> This is true even in the cases where a young childless couple marry, for if they do not have children together, the stability of the marriage may be severely affected. They may resolve the difficulty by adopting children, but likely as not, one or both may have outside affairs, often leading to early separation.

We can see then that the form of the household group is the result of the working of several principles. One is the strength of the household as a kin group, and its tendency to hold together, claiming the loyalty and support of the filial generation, until the death of the head, or the spouse of the head who is normally the focus of the household. Another principle is the high value set upon marriage and the desire of women to have someone to be "responsible" for them in their child-bearing years.

#### CONJUGAL RELATIONSHIPS

We have already seen that the various patterns of conjugal relationship shade into each other when viewed from the angle of their significance in the structure of the domestic group, and that the important factors are the birth of children and common residence, rather than the legality or illegality of the union, in this respect. However, it is clear that this is a simplification of the issue and it will not be amiss to examine the nature of the various conjugal relationships in a little more detail.

The two major features of "Christian" marriage are its legality. and its respectability, and by the latter we also give recognition to the fact that it is sanctioned by the church. Marriage gives security to a woman and her children, and the possession of a wedding ring is the outward symbol of her security, entitling her to respect and to be referred to as "Mistress". Her husband cannot leave without her having the legal right to his support. Common-law marriage lacks the backing of the law, and its chief characteristic is the comparative lack of security enjoyed by the woman. In practice, however, there is little observable difference between a legal and a common-law marriage, and it is certainly untrue to say that the woman of a common-law partnership enjoys a greater degree of independence. On the contrary, one constantly hears the complaint by men that once you marry a woman she ceases to be a considerate partner and begins to feel that she is entitled to her husband's care without having to exert herself unduly to please him. In the case of a woman who owns her own house, or is living with her parents, and takes in a common-law husband, the position is somewhat different, such cases are dealt with later. As common-law marriages continue through time, even if they are not converted into legal marriages (almost invariably because of the insistence of the woman), they become equivalent to it in almost every respect. The woman begins to feel greater security as her children grow up, and the man has more positive interest in the group which will care him in his old age, and to whom he will leave his property.

It must be stressed that common-law marriages almost invariably become established because of the couple's interest in their children. Very few, if any, childless girls will consent to go and set up house with a man unless he marries her. They prefer to have sexual relationship walread father is hear childred wome lation the to and walread wa

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pani Queb O the in a ship whilst still residing with their parents. Women who have children already will sometimes consent to set up house with a man who has not fathered any of their children, and it is not uncommon for a woman who is head of a household, and surrounded by her children and even grand-children, to take in a common-law husband. In the case of younger women it is less common, but not unknown, and such temporary relationships involving common residence are much more frequent in the towns or at the mining centres. Such relationships are unstable, and within the village context one of the partners to such a union is frequently an "outsider" to the village.

#### CEREMONIAL ASPECTS

The period of maximum striving towards legal marriage is in a woman's early years of adult life. Before she has had any children and whilst she is still in her parents' home, both she and her parents are interested in making a good match. Once the girl has had children she may wait until their father agrees to marry her, or move into a common-law union with him, and in the latter case she will probably try to convert the union into a legal marriage as soon as possible. If the union endures through time it will become less important to her to have the protection of a legalized relationship, and if the couple do get married late in life it will almost certainly be to satisfy their children.

Much has been said in the Caribbean about the prohibitive cost of the wedding ceremony, and there is no doubt a wedding can be an elaborate and expensive affair. Before the actual wedding day, Que-que dances a must be kept on at least one night, and for the day of the wedding, feasts have to be provided as well as food and accommodation for relatives and guests from outside the village. Dresses for the bride and bridesmaids, cars to convey the party to church, etc., all add to the expenses. The family of the bride incur the major expense, but both families prepare feasts or "tables" and both keep Que-que dances.

The marriage of a young couple is very much a matter of a compact between two sets of kin (a fact brought out in the Que-que ceremonies), finding its extreme expression in marriages arranged by the two families. In one case noted the family of a young man who was working in Aruba found a bride for him and arranged the marriage with her family. He came back to marry her, although having only seen her photograph. Marriages between two persons already having children in common is very much the affair of the two people concerned, their

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<sup>&</sup>lt;sup>a</sup> Que-que (pronounced Kweh-kweh) dances are traditional local dances accompanied by songs, held only on the occasion of weddings. In the village, the Que-que forms an integral part of the whole cycle of wedding ceremonies.

b One wedding which I attended in the village involved the bride's father in the expenditure of over 300.00 dollars (BWI.) which is a considerable amount in a village such as this. (One B.W.I. Dollar equals four shillings and twopence or 55 American cents, approx.)

wider social relationship having already been established through the birth of children or the fact of common-residence, but it is still often celebrated as an elaborate ritual, though a few people do marry yery quietly after they have lived together for some years.

#### THE POSITION OF MEN

When discussing the structure of household groups in the West Indies, women and their functions as mothers and grandmothers seem to be the natural starting point. It will not be unprofitable to step outside the main line of argument for a moment, in order to take a

brief look at the picture from the standpoint of men.

As boys approach puberty their activities become more and more to be directed to activities outside the home. Whereas girls are watched and kept close to the house, and enjoined to keep away from boys lest they "get belly", boys begin to wander farther afield. One of their main jobs is to look after cattle, and early in the morning and late in the evening they can be seen driving animals to or from the pastures (often several miles). After dark they congregate in the cake-shops, or assemble around the building in which any party or meeting is taking place. They roam around in groups and have relatively little close contact with girls although they may occasionally meet girls of their own age in the bush and indulge in sexual experimentation. There is a certain amount of horseplay with girls, the boys touching their breasts, etc., but the girls will usually resist any attempts at intercourse for fear of the consequences. It is at this stage of development that so-called cases of rape most often occur, and it would seem that the usual pattern in such cases is that the girl agrees to intercourse, and when interrupted or discovered, charges the boy with "holding her". Pregnancies do result, but of course there is rarely any hope of a young boy marrying or even supporting the child and his usual reaction is to deny paternity. Unless young men go away to the bauxite mines (or perhaps it would be more correct to say until they go there) they have very little chance of becoming economically independent. They help on farms, do odd jobs such as delivering newspapers, and a few become apprenticed to the carpenters, tailors, blacksmith and shoemaker, getting no pay, but perhaps being given a "pocket-piece" at the end of the month. As they grow older and begin to earn more money, girls are more willing to trust them to take care of the consequences of sexual activities, and they are also better able to give presents to their sweethearts. It is at this stage that they are most likely to become fathers, and often of the children of girls much younger than themselves. If they are working for good wages out of the village they may decide in consultation with their parents that they should marry and if the parents are willing then the process of writing first to the girl and then to the father or mother will begin. The factors determining the choice of a wife are much more complicated than those determining the choice of a sexual partner,

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and even if the young man meets the girl outside the village and "falls in love" with her, the opinions and participation of both kindred are important. It is significant that in the approach to sexual intercourse young men are always "begging" and the standardised approach is for him to ask the girl to "gie me a lil" (give me a little).

Marriage is not economically possible for men at a very early age and parents will be unwilling for their daughters to marry unless they can be sure that the man has a reasonable chance of supporting her. The man will not be eager to take on the responsibility of a family either, and it is much more likely that he will spend his time until he is thirty plus, getting sexual satisfaction where and how he can. Even if he has money it does not mean that he will necessarily wish to marry and settle down, and it may be only after he has had several children with a woman, that they will set up house and perhaps marry or live in a common-law relationship. After marriage the sanctions on infidelity do not operate as strongly for a man as for a woman, and the chances are that he will get "outside" children, particularly if he goes to work away from the village for a while, leaving his family behind.

Some men never become heads of households, although they have a large number of children with a series of women. Perhaps the ultimate development of this line of action is represented in the case of a policeman from another village who, it was said, had twenty-two children with twenty-two different women. Even if the story is not true, it does illustrate the possibilities which are not considered fan-

tastic but perfectly likely to occur.

As men grow older they need someone to cook and wash for them and even if they have not married or settled in a common law union with the mother, or one of the mothers of their children, they attach themselves to some household group. We have seen that in the village there are twenty-five men living alone. These men are mostly in the middle or upper age groups and depend either on relatives such as sisters or daughters to do their cooking, or on women who help them in return for economic reward. A few men enter into common-law unions with women who are already household heads, and a few have young women coming to live with them, or clandestinely visiting them. Some are widowers, and some are separated from their wives.

Many men, of course, marry and establish themselves in a very stable position as head of their household. They are good husbands and fathers and enjoy the respect of their children. If their spouses die they may continue to hold the household together particularly if they have a daughter or daughters who are adult or nearly adult. If the children are all small however they will probably be dispersed amongst relatives.

Men are conscious of their need for sexual satisfaction, and tend to get it whenever opportunity presents itself. They also desire to set up their own households and become head in their own right. However, they do not necessarily feel that the responsibility for their children is theirs alone, and will often evade it as much as possible. Men frequently complain about the bastardy laws, saying that "British Guiana law is woman's law". Even if they are married and have several small children, some men do not hesitate to disappear if they are unable to provide enough food and money for their families. This is not severely condemned and one woman who was pregnant, had several small children, and had just been deserted by her husband, said that she thought it better for him to go and try to get work to feed and clothe himself than try in vain to keep them all. She spoke without bitterness although he had not told her where he was going, and she accepted responsibility for the children automatically.

Men are not the centre of interest of a domestic group as a rule, but are the mobile element, not burdened by the care of children and always making way for the women in the running of the household affairs.

### CONCLUSION

In this short paper an attempt has been made to show how the structure of the domestic group in one selected community can be understood not merely by classifying different types of households on the basis of the conjugal relationship which supposedly gives rise to them, but by regarding the form of each household group as the result of the influence of different forces. The strength of kinship ties, and particularly the ties existing between members of a matri-central group, are balanced against the high value set on marriage. The particular form of household grouping to be seen at any one point in time is the result of the working of either or both of these principles, modified by such factors as the high mobility of men in search of wage labour, the diffusion of sources of income, the relationship of family groups to land, and the conflicting values which are inherent in the wider social structure of British Guiana as a whole.

The futility of trying to judge such a situation in terms of moral values which condemn "illegitimacy" out of hand is apparent. It is equally apparent that when we speak of illegitimacy in such a context we are, in effect, referring not to the social or legal status of the child which is relatively little affected, but to the marital status of the mother. Although an illegitimate child has no legal claim upon the estate of the father, this is not felt as a disability, for the children acquire property equally from their mothers and their mother's husbands or commonlaw husbands. The equivalence of siblings in respect to inheritance of property results in women being able to hold and pass on property equally with men, and women leave property to their children no matter who the father is. The mother herself suffers no social stigma at having given birth to illegitimate children, as can be seen from the way in which she is always accepted into her own family. In fact, it is clear that the term "illegitimate" is a judgement based on a set of values which do not

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(3) PA in (4) SI operate effectively within this community. The morality of the system springs from the structure of the society, and only a change in the social system as a whole will be accompanied by the change in the moral values which it exhibits.

At the beginning of this paper it was mentioned that comparison of family organization in different parts of the Caribbean raises important questions as to the reasons for such marked similarities and intimated that these questions cannot be answered merely in terms of historical factors connected with the form of family organization in slavery or pre-slavery times. It is hoped that some of the material presented in this paper will be of use in comparative study and that a comparison of variations as well as of similarities can be related to other co-variable factors in the total social framework.

#### ACKNOWLEDGEMENTS

My indebtedness to my teacher, Professor Meyer Fortes, is obvious to those who are familiar with his work on the Ashanti (1); and the many points of similarity in the domestic structure of this Guianese village, the majority of whose inhabitants call themselves Cromanti (a term used since slavery days to designate groups of people who originally came from the Gold Coast), and Ashanti, will no doubt interest those who like to seek "Africanisms" in the New World.

#### REFERENCES

- FORTES, M. (1949), Time and Social Structure: An Ashanti Case Study, in Social Structure, Studies presented to A. R. Radcliffe-Brown. Oxford: Clarendon Press.
- (2) HENRIQUES, F. (1949), West Indian Family Organisation, in American Journal of Sociology, Vol: LV. No. 1.
- (3) PARSONS, T. (1949), The Kinship System of the Contemporary United States, in Essays in Sociological Theory, Pure and Applied. Illinois: Free Press.
- (4) SIMEY, T. S. (1946), Welfare and Planning in the West Indies. Oxford: Clarendon Press.

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## URBAN RESEARCH IN THE BRITISH CARIBBEAN: A PROSPECTUS

# L. Broom

Perhaps the most significant social trend in the Caribbean today is the urbanization of agricultural populations and the progressive concentration of people in the major city of each island, (3) (4). These processes are associated with drastic changes in employment, in the nature of the economy, and in every aspect of the way of life of the people. Unfortunately, very little work has been done on the topic thus far. Indeed more is known about Puerto Ricans who have migrated to New York than about the populations that have migrated to the cities of the Caribbean.

It is surprising therefore to find in Professor Simey's book (9) only the most fleeting recognition of the existence of Caribbean cities, much less their increasing importance. The several Commission reports show concern about some of the least lovely aspects of urban society, but no effort to assess the major trends of urbanization and its social consequences. Yet planning is bound to fail if the plans are not contrived in a realistic framework that comprehends urban society as well as rural society, and urban and industrial problems as well as agricultural problems. Professor W. A. Lewis' valuable recommendations for industrial development (7) are a sound antidote to the determined agrarianisms of most observers. Even he, however, fails to take enough account, or so it seems to me, of the urban context within which industrial progress must occur.

With the very competent censuses of Jamaica in 1943 (1) and of the other British West Indies in 1946 (11) as well as the censuses of the Spanish-speaking Caribbean, we have available some of the statistical basis for analysing urbanization in the Caribbean and for comparing this development with the broad trends underlying city growth in the Western World.

Some clues to the problems we shall encounter in the Caribbean are suggested by Davis and Casis (5). They have contrived an Index of Urbanization designed to measure "the degree of urban concentra-

<sup>&</sup>lt;sup>a</sup> Some of the points treated in this paper were discussed over Radio Jamaica on 26 October 1950 in the University College of the West Indies radio series. The writer was then Fulbright Research Fellow at the Institute of Social and Economic Research of the University College of the West Indies. Thanks are due to the United States Education Commission in the United Kingdom for the research opportunity and the Research Institute and its Director, Dr. H. D. Huggins, for academic hospitality.

tion." a Although there are important unanswered problems in the index and its application, it is a useful empirical device with which to qualify density criteria of urbanism. We shall reserve to another place the analysis of Davis's methodology and use the index nere for comparative purposes. As measured by the index (see Table I) certain parts of Latin America, notably the A. B. C. area, (Argentine, Brazil & Chile), have a rather high degree of urbanization despite a relatively low density. British Guiana with a density of 4.6 and a Davis Index of 19.4 shows this type of discrepancy. In Jamaica and Trinidad, on the other hand, exceedingly high densities, approximating 280 persons per square mile, are associated with a moderately low Davis Index, 16.2 for Trinidad and a yet lower one for Jamaica, 10.8.

The Caribbean area with its low urbanization and high densities is sharply set off from the rest of the Western Hemisphere. The irrationality of lumping the Caribbean with "Latin America" is thus shown on a count, in addition to its cultural diversity. We must turn to India and Poland for such an association of demographic conditions, and in these cases, of course, great differences in the size of units throw doubt on comparative interpretation. Indeed the varying magnitudes of units raises serious methodological problems. Comparative analysis should not be deferred, however, until this difficult question of scale is solved; on the contrary its solution will be accelerated if comparisons are pressed forward and the problems are presented in empirical context. Obsolescence is a smaller risk than methodological timorousness.

In Table II, I present a historical perspective of the growth and urbanization of Jamaica and Trinidad. Figures for Trinidad prior to the last census may not be quite reliable and I have given the Davis Index only for three dates. These are surprisingly stable, and if the Index should continue at this level in the face of growing density, it would pose intriguing questions about the direction of development of Trinidadian society. Jamaica, on the other hand, which now has a gross density almost exactly that of Trinidad, has doubled its Davis Index in half a century, or if the larger boundary be taken for Greater Kingston it must have tripled its Davis Index. Jamaica appears to have embarked on a period of major urban development, and I believe that its index of urbanization will keep pace with its density.

Table III must be read with the cautionary note about size of units in mind. To emphasize this I have separated the larger islands from the smaller ones and the mainland colonies from these. It might be argued that Barbados should have been classified as a larger island. The astonishing density of this island is comparable only with that of parts of Indonesia. Barbados' physiologic density approximates its gross density but the physiologic density of the other islands whose terrain is precipitous, is only suggested by the gross density figures

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a op. cit., (5) p. 187. See the footnote to Table III for the computation of the Index.

available. It is quite possible that a proper land census would show the physiologic density of Grenada, for example, not far from that of Barbados.

The foregoing presentation has been intended to summarise as succinctly as possible the scope of urbanization in the British Caribbean. I must reserve for a more extended treatment an analysis of urban age structures and other demographic features of the area. More especially, I look forward to a study of the internal differentiation of the Kingston-St. Andrew urban centre as the first in a series of detailed surveys of the character of Caribbean cities. (The unpublished census district data from the 1943 census have been generously provided by Mr. O. M. Royes and are partially processed). I hope that the findings will prove amenable to formulation from the viewpoint of one or more of the typological methods of Shevky, (8), Tryon and Schmid and perhaps of the gradient scheme of the "Ecological" school. The sub-district data may prove too recalcitrant for effective exploitation.

The relatively low industrialization of this area compared with its urbanization deserves at least a passing comment. There is probably an exaggerated tendency to equate these phenomena, a very shortsighted view of urban development if we take a broader historical perspective than the industrial Revolution in Europe and North America. To be sure an urbanized population is a labour market potentially available for recruitment to industrial plants, and in this sense the existence of urban concentrations may accelerate industrial establishment. From another point of view, even such weakly differentiated urban populations as exist in the British West Indies comprise a concentration of buying power. This concentration of buying power invites a quite different kind of mobilization than the same funds and population distributed in the countryside. Consequently, there is an opportunity for the cumulative development of entrepreneurial structures and concurrently of small scale industrialization. This model, it seems to me, is closer to reality in the British West Indies than the characteristic notion that the industrial plant must provide the focus for economic development.

Changes in occupational structure which have accompanied city growth in the Western World are apparent in the British West Indies, but we must strike a cautious posture if we apply Clark's convenient tri-partite classification, (2). This caution is motivated both by the problem of corps of trade and service workers of low productivity. They may comprise a transitional type, functionally related to the itinerant peddlars and domestic workers of the early 19th century. Ignoring these qualifications, the Jamaica of the 1943 Census had moved in occupational terms about as far from an agricultural economy as the United States had in the 1880's, but Jamaica had not moved as far to-

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a The typologies of R. C. Tryon and C. F. Schmid have not yet been published.

ward industrialization. Nor is there any reason to expect that the resources of Jamaica will permit in the future a rate of industrialization comparable to that of the United States or Western Europe. It is indeed tragic that the outstanding mineral discovery in the Island is bauxite, which requires a relatively small labour force for its extraction and a great, as yet unavailable, power supply for its refining. On the other hand, if the power problem can be solved and a part of the refined aluminum retained in the Island, the fabrication of aluminum products might significantly increase industrial employment and the national product, and differentiate the urban workers.

The employment of a heavy urban migration will be a stubborn problem in the Caribbean, and it is only in the perspective of generations that relief may be anticipated. The classic trend toward declining fertility of urban areas will do little to relieve population pressures in the immediate future. All that may be foreseen for the short term is a decline in the rate of increase. Nevertheless the fertility of these new urban dwellers deserves the most careful scrutiny. Will the expected fertility trends manifest themselves when industrialization is so low, and when the service and trade activities of so many urban dwellers are only rudimentary? If declining fertility is marked in such groups as these, and I should guess that this will prove so, then we may be close to finding the symbolic values associated with urbanization within which lie the ultimate solution of the problems of overpopulation.<sup>a</sup> In my opinion there is no better place to undertake such investigation than the Caribbean. <sup>b</sup>

Although the problems of the British Caribbean may be affected by international migration they most likely will be worked out or remain unsolved in the urban centres of the Caribbean. The British Caribbean did not participate very significantly in the phase of major international population movements that terminated early in this century. The colonial boundaries and the internal structure of the Caribbean society and economy limited the utilization of the human resources of the area. These limits began to break down with the canal building enterprise in Panama and the economic stirring in the greater Antilles and Trinidad, which initiated sporadic population movements of some magnitude.

Short of a dramatic economic development in the circum-Caribbean area, which would create large labour demands, there appears to be no reliable avenue for the emigration of any significant part of the dense populations of the islands. In terms of regional development, the con-

a Although some correction would need to be made for cultural variability, let us say in interpreting Caribbean findings for India, I do not believe that cultural factors will be determinant—unless of course one wishes to consider cities as an emergent culture.

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b The Puerto Rican case has been explored by Davis, Hatt, Senior and others, but it would be unfortunate to assume it to be typical, and as a consequence elude inquiry into the conditions in the European colonies and the independent countries of the Caribbean.

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<sup>\*</sup> Cour Inclu 17.6.

tinental United States and Canada ought to be the normal outlet for these excess populations, but for extraneous reasons this is not so. Nor can England, the metropolitan country, with its high density and mature economy be regarded as a suitable outlet. The very ambiguity of the British Colonies in the Caribbean, which fall in a natural region separate from their political metropolis, aggravates the problem further.

It seems likely, therefore, that with some periodic relief from interisland movements (4) and, hopefully, from the absorptive capacities of the mainland colonies, the population pressures must be handled internally. Much as agrarian reforms may promise, they do not promise the solution. The city then demands to become the focus of interest of the planner and the social scientist. Whether they suit our taste or not, the cities of the British West Indies are increasing in size and importance, and the trends toward urbanization appear to be irreversible.

TABLE 1. POPULATION DENSITY

	G	ross Density b		Gross Density		
	Davis Index a	(Persons per square mile)		Davis	(Persons per square mile)	
LATIN AMERICA			Caribbean Area			
ABC Area Uruguay Argentina	46.2 43.1	30.5 14.9	Cuba Puerto Rico Dominican Republic	30.5 17.8	108.1 546.1 109.7	
Chile Brazil	35.8 16.3	17.9 12.5	Jamaica* Trinidad*	10.8 or 17.0 16.2	3 280.9 284.7	
Western South		1	NORTH AMERICA			
Ecuador Venezuela Peru Bolivia Colombia British	22.3 15.4 13.1 13.9 13.3		United States Canada EUROPEAN COUNTRIES Great Britain Germany	42.3 34.3 65.9 46.1	44.2 3.3 504.7 382.0	
Guiana* Middle America, including Mexico		4.6	France Sweden Greece	31.2 28.7 25.2	190.5 42.7 141.6	
Panama Mexico Nicaragua	23.4 19.1 20.7		Poland NON-EUROPEAN COUNTRIES	17.4	206.2	
El Salvador Costa Rica Guatemala Honduras	12.2 13.4 8.2 6.8	153.3 32.5 72.3 27.1	India Japan Australia New Zealand	8.8 43.1 62.1 43.8	246.0 469.0 2.3 15.4	

After Davis and Casis, op. cit., (5), p. 3, and Davis, (6).

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b Computed from data in (10). Census dates vary but in all cases are in the 1930's or 1940's.

<sup>\*</sup> Countries not included by Davis. Index figures computed. Including suburban St. Andrew in Kingston, the Index number for Jamaica is 17.6. Using the city boundaries it is 10.8.

TABLE 2. URBAN DEVELOPMENT IN JAMAICA AND TRINIDAD &

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Island	Density	Davis Index	Population	Island	Density	Davis Index	Population
Trinidad	1			Jamaica			
1881	82		153,128	1881	132	5.0	580,804
1891	107	13.6	200,028	1891	145	5.7	639,491
1901	137	16.7	255,148	1911	188	7.2	831,383
1911	168	15.0	312,790	1921	195	8.4	858,118
1921	184	15.1	342,523	1943*	280	10.8	1,237,063
1946	285	16.2	530,762			20.0	1,201,000

a Data from (11) and (1).

\* Excluding suburban St. Andrew. If suburban St. Andrew be counted with Kingston with which it comprises an ecological unit, the Davis Index for 1943 would be 17.6.

TABLE 3. URBANIZATION IN THE BRITISH CARIBBEAN A

Place and Population	in Cities ≥5,000	in Cities > 10,000	in Cities ≥ 25,000	% in Cities > 100,000	Davis Index <sup>b</sup>	Density (Persons per square mile)
	P <sub>1</sub>	Pa	Pa	P <sub>4</sub>		
Larger Islands						
Trinidad 530,762	24.4	22.9	17.5	_	16.2	285
Jamaica	12.6	11.6	9.4	9.4	10.8	280
1,237,063	(19.5)*	(18.4)	(16.3)	(16.3)	(17.6)	
Smaller Islands	c				,	
Barbados 192.800	35.7	35.7	35.7	-	26.8	1,160
St. Kitts 29,818	41.8	41.8	_	_	20.9	439
Antigua 40,778	26.9	26.9	_	-	13.5	378
St. Vincent	23.9	23.9	_	-	11.9	430
St. Lucia 70,113	23.6	23.6		-	11.8	301
Dominica 47,624	20.5	-	_	_	5.1	156
Grenada 72,387	7.8	_	-	-	2.0	548
Continental						
Colonies						
Br. Guiana 375,701	27.6	25.0	25.0	-	19.4	3.1
Br. Honduras 59,220	36.9	36.9	-		18.5	6.7

Computed from data in (11), and (1). Computed: Davis Index =  $P_1 + P_2 + P_3 + P_4$ 

e No index figures have been computed for the following islands which lack cities over 5,000:

Island	Density	Population	Island	Density	Population
Carriacou	512	6.769	Nevis	228	11,388
Grenadines	259	4,479	Anguilla	144	5,037
Montserrat	448	14,333	Tortola	258	5,421

Jamaican figures in parentheses include suburban St. Andrew with Kingston.

#### REFERENCES

(1) Census of Jamaica (Eighth), 1943. Central Bureau of Statistics, Jamaica.

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- (2) CLARK, C. (1940), Conditions of Economic Progress. London: MacMillan & Co.
- (3) CUMPER, G. E. (N.D.), The Social Structure of Jamaica. (esp. Ch. III) Caribbean Affairs Series. Extra-Mural Department, University College of the West Indies.
- (4) ————(N.D.), The Social Structure of the British Caribbean. (esp. Pt. II. Chap. IV. and Pt. I. Chap. 3) Caribbean Affairs Series, Extra-Mural Department, University College of the West Indies.
- (5) DAVIS, K. and CASIS, A. (1946), Urbanisation in Latin America, Milbank Memorial Fund Quarterly, Vol. XXIV, No. 2.
- (6) DAVIS, K. (1951.), The Population of India and Pakistan. Princeton University Press.
- (7) LEWIS, W. A. (1950), The Industrialisation of the British West Indies, Caribbean Economic Review, Vol. II, No. 1.
- (8) SHEVKY, E. and Williams, M. (1949), The Social Areas of Los Angeles. California University Press.
- (9) SIMEY, T. S. (1946), Welfare and Planning in the West Indies. Oxford: Clarendon Press.
- (10) The Statesman's Year Book, 1948. London: MacMillan & Co.

8.8

(11) West Indian Census, 1946. Central Bureau of Statistics, Jamaica.

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